

FIG. 1 is a block diagram of a search engine 100. A search key 102 is input to a search engine 100. The search engine 100 includes a match logic 103 and an associated storage 111. The match logic 103 is connected to the associated storage 111 via a match address 114 and a match function 116. The match logic 103 is also connected to a memory 107 via a match logic 105 and a match function 101. The match logic 103 is also connected to a memory 107 via a match logic 105 and a match function 101.

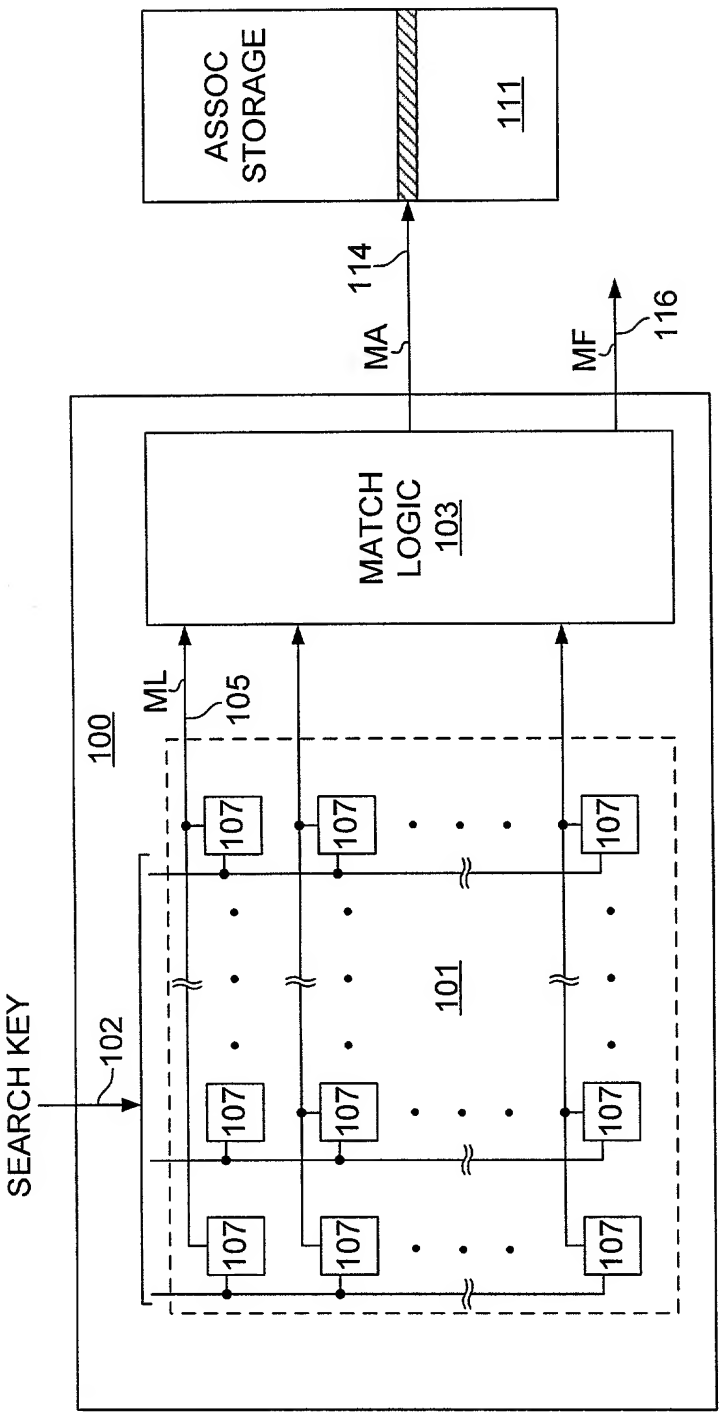


FIG. 1
(Prior Art)

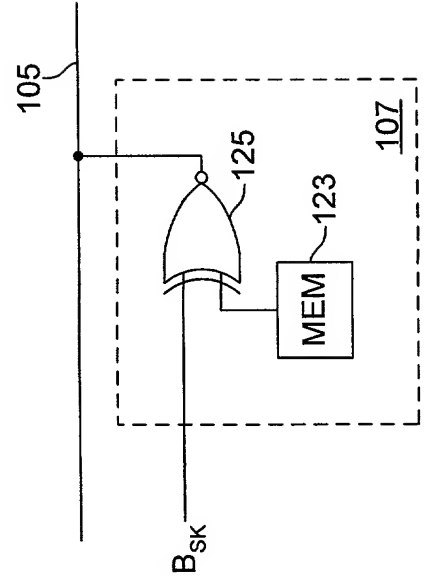


FIG. 2
(Prior Art)

FIG. 3

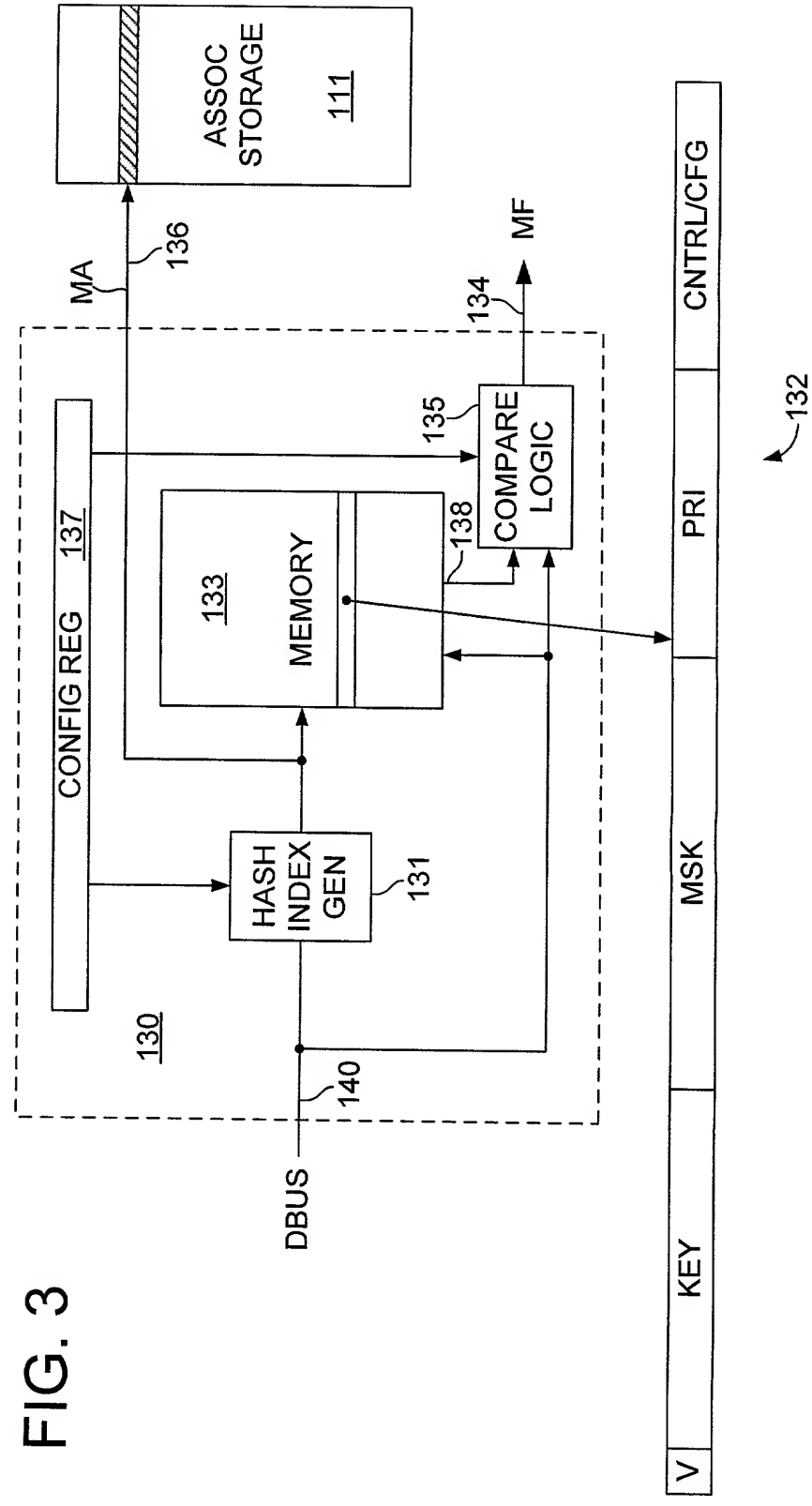


FIG. 4

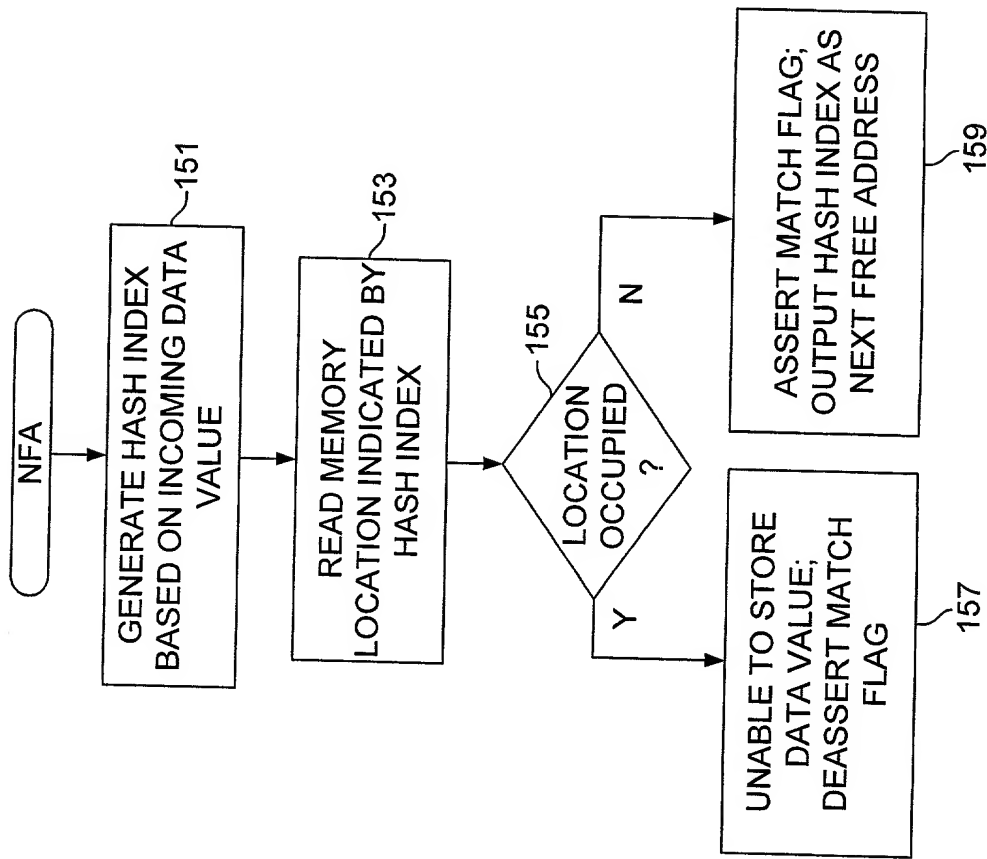
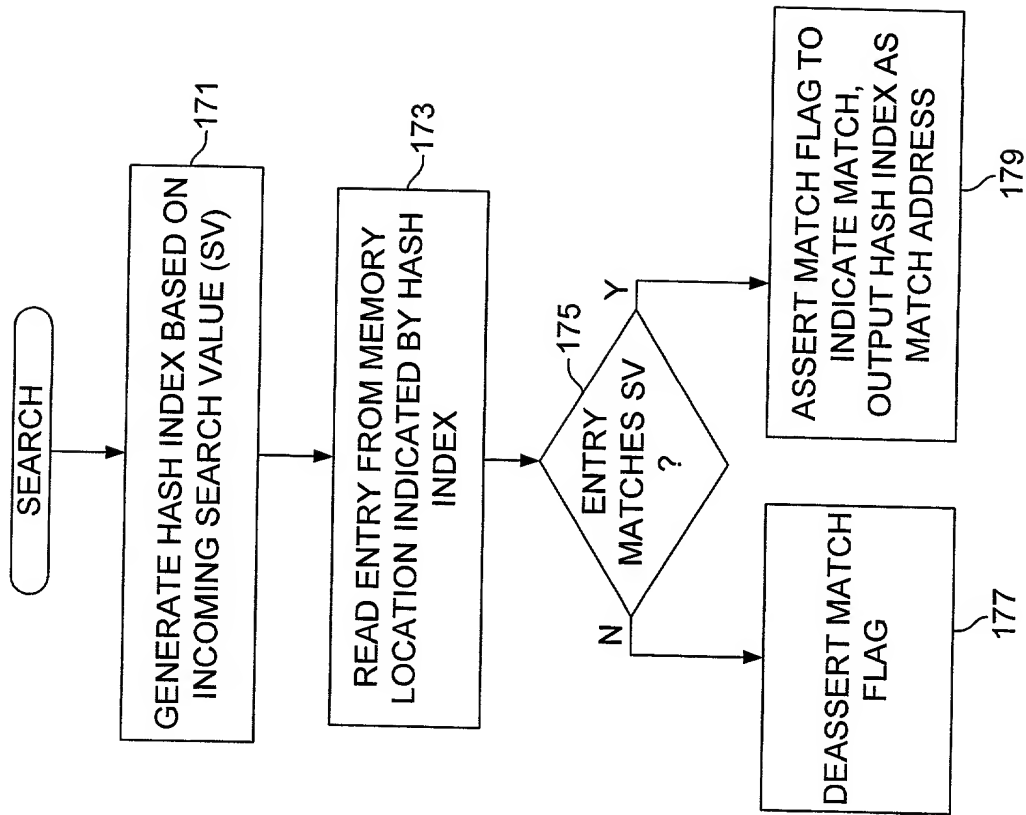


FIG. 5



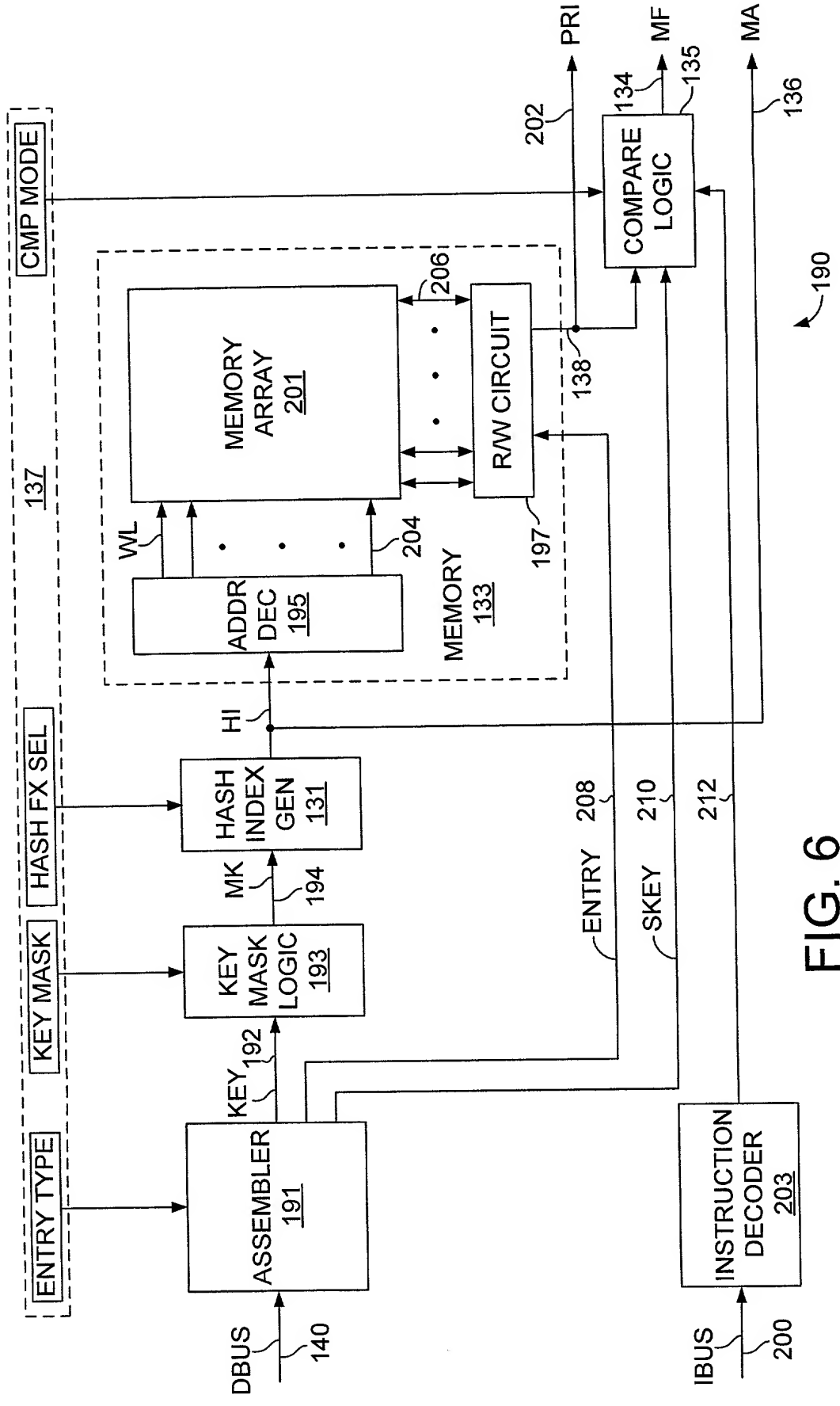


FIG. 6

FIG. 8 is a block diagram of a system 100 in accordance with one embodiment of the present invention. The system 100 includes an address selector 136, an address decoder 195, a mask generator 241, a multi-mode comparator 243, and compare logic 135. The address selector 136 receives an address bus 230 and an address select signal 236. It outputs an address 237 to the address decoder 195. The address decoder 195 outputs a word line 204 to a memory array 200. The mask generator 241 receives a mask select signal 244 and outputs a mask 245 to the multi-mode comparator 243. The multi-mode comparator 243 receives a key 246 and a sub-key 210 and outputs a match flag 212. The compare logic 135 receives the match flag 212 and outputs a non-faulty address 212.

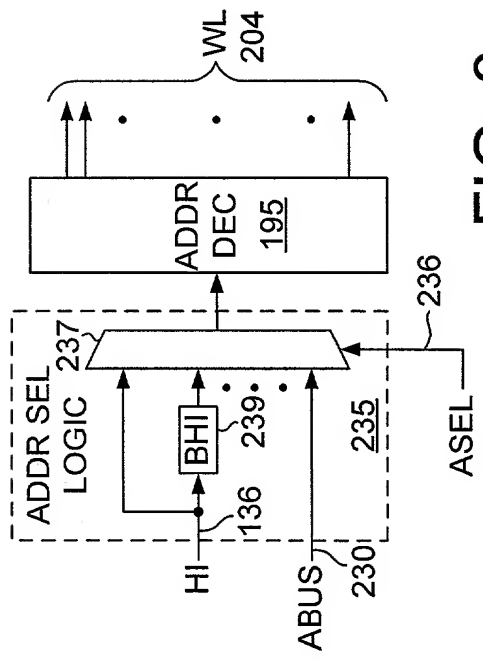


FIG. 8

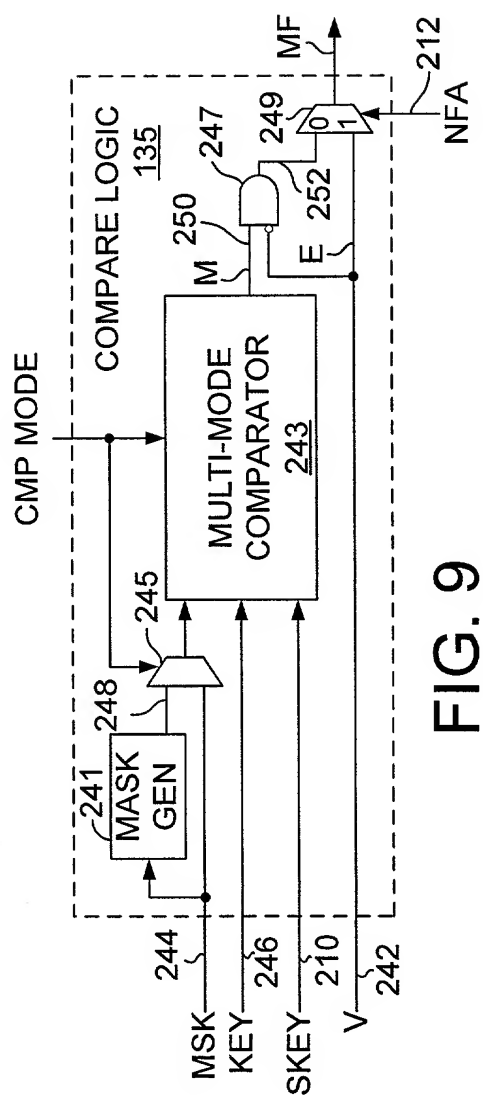


FIG. 9

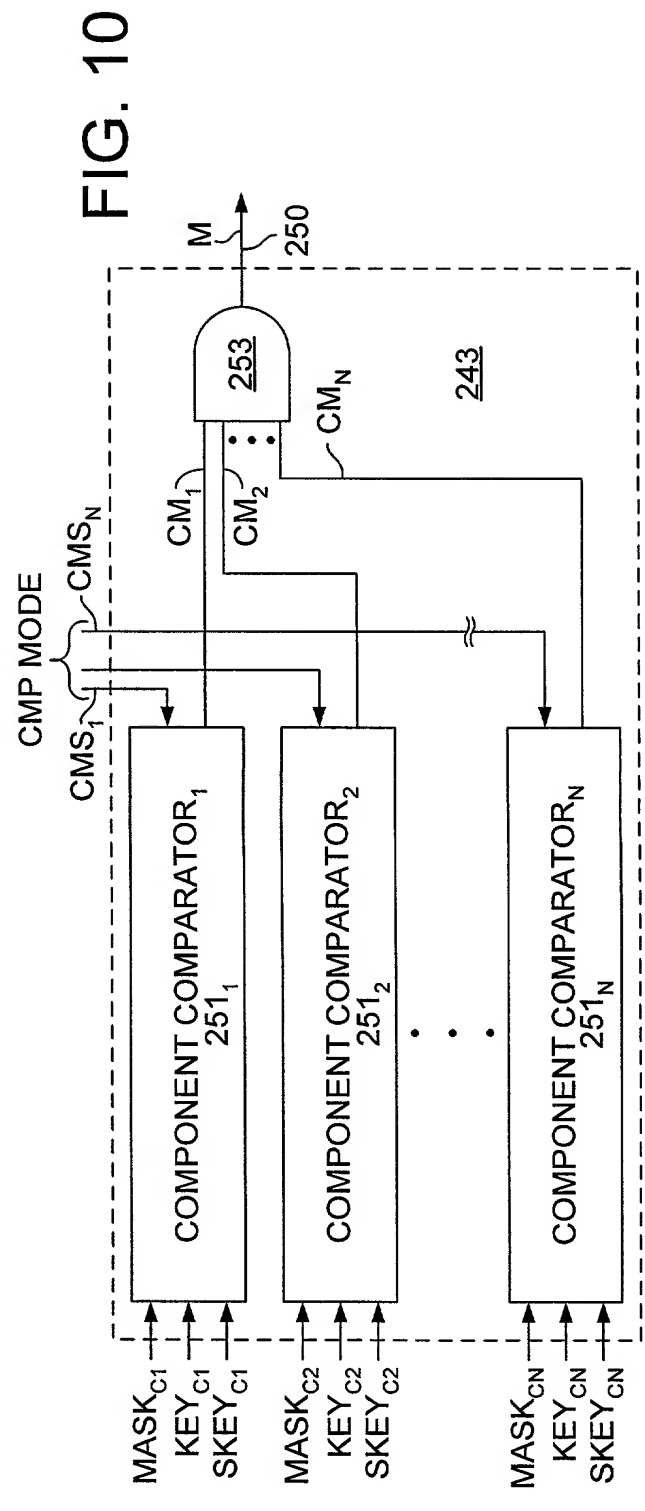


FIG. 10

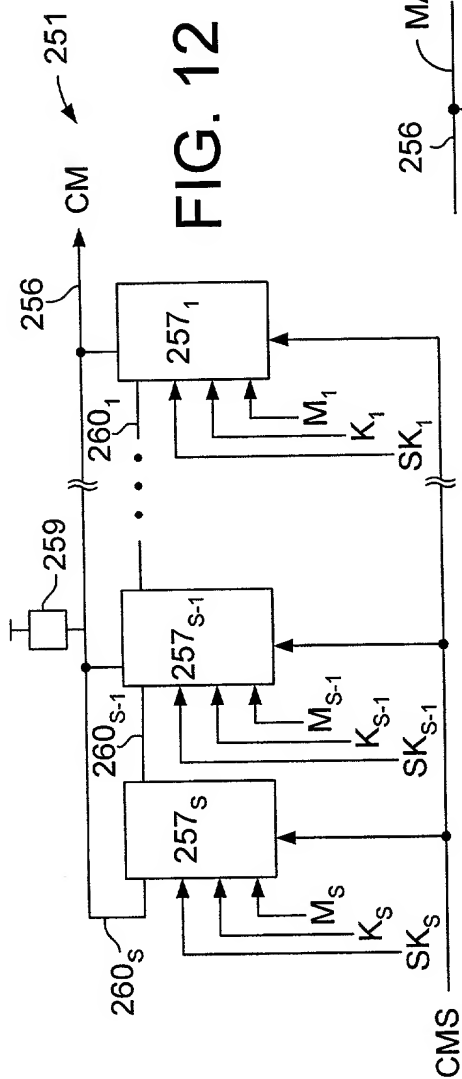


FIG. 12

FIG. 13

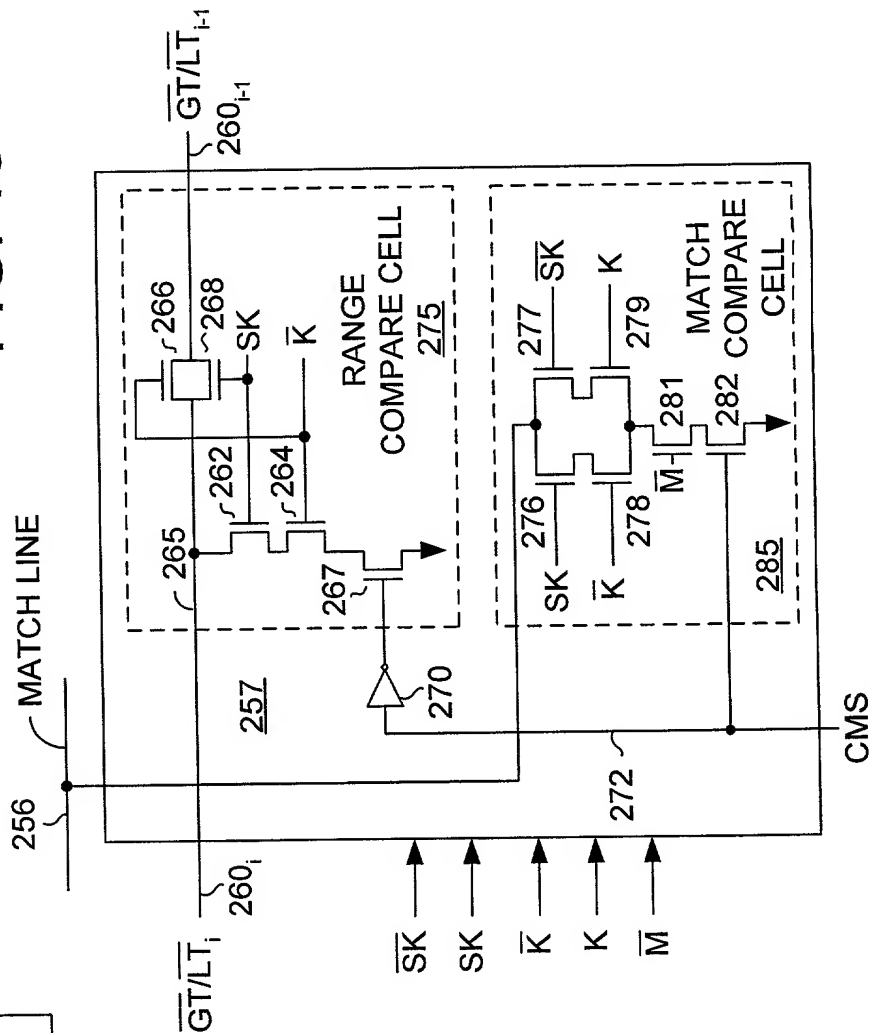
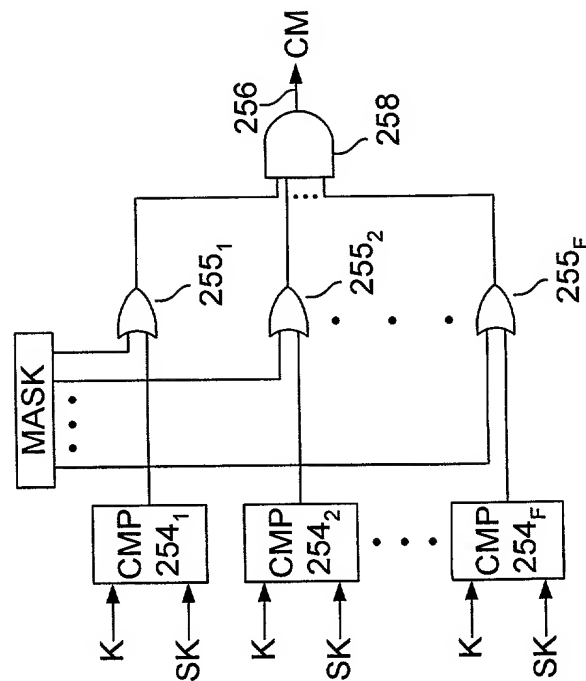


FIG. 11



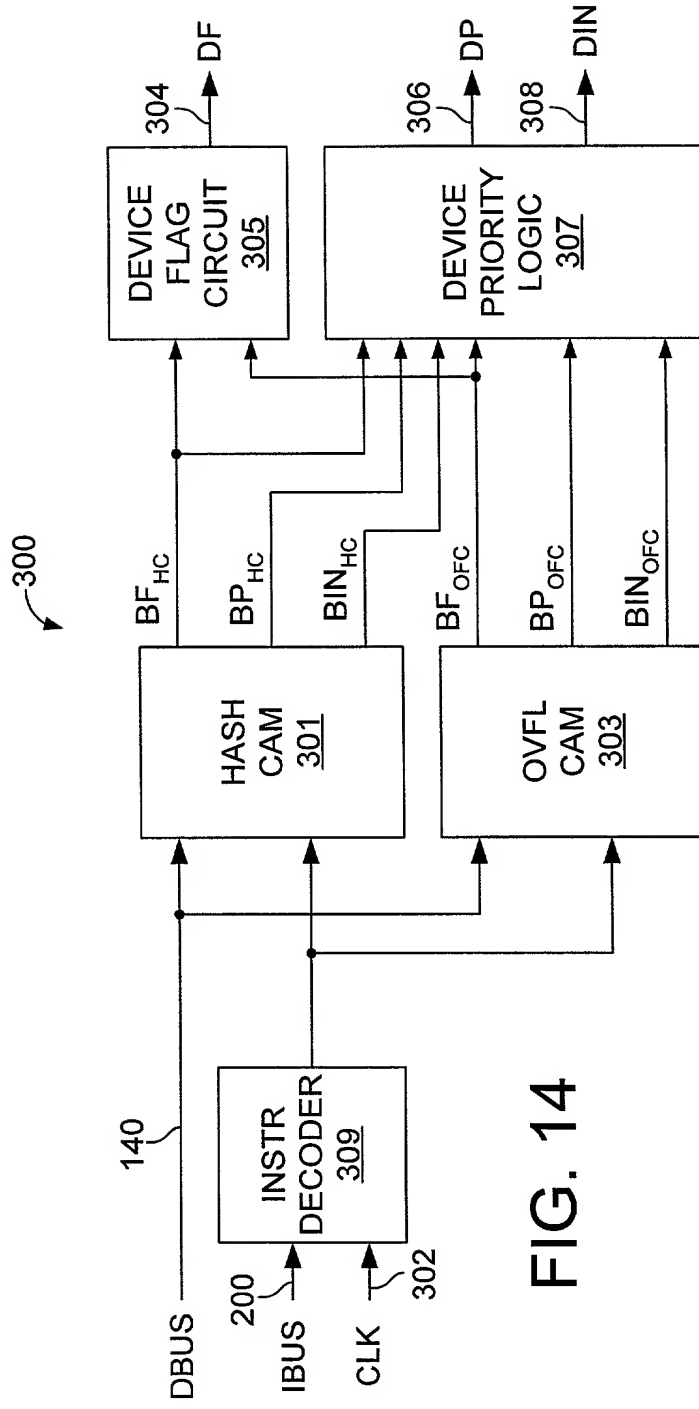


FIG. 14

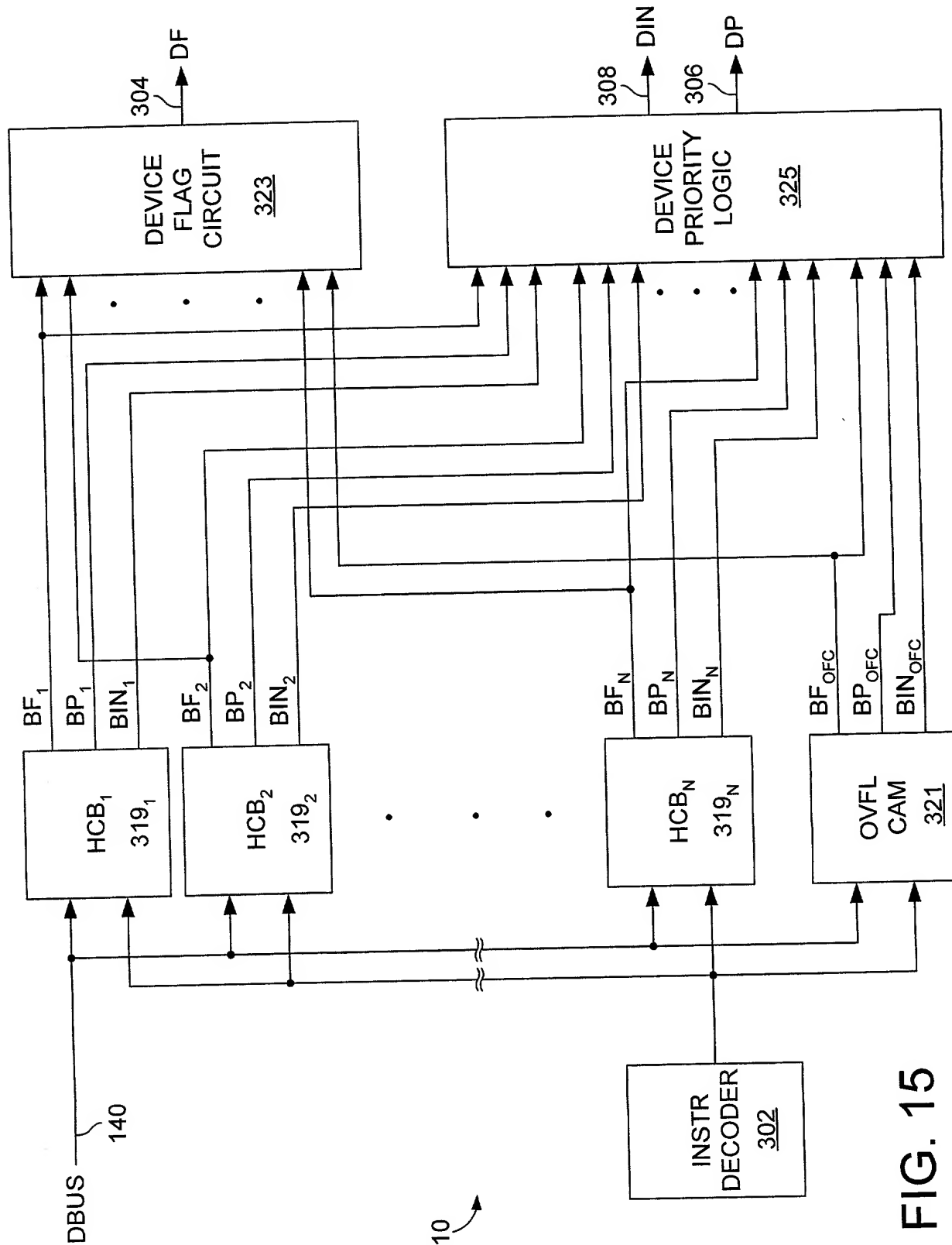


FIG. 15

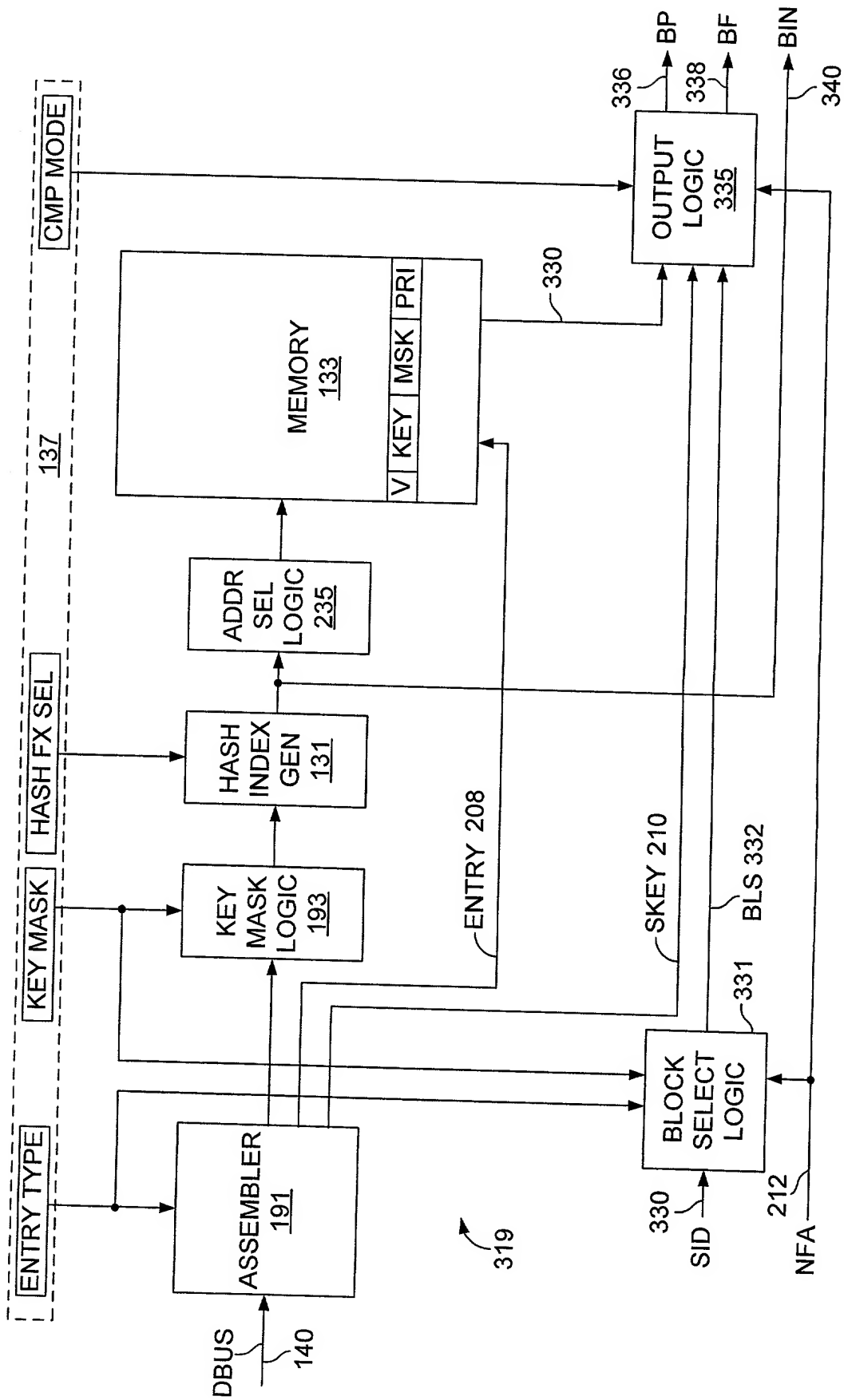
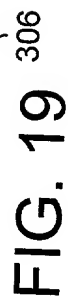
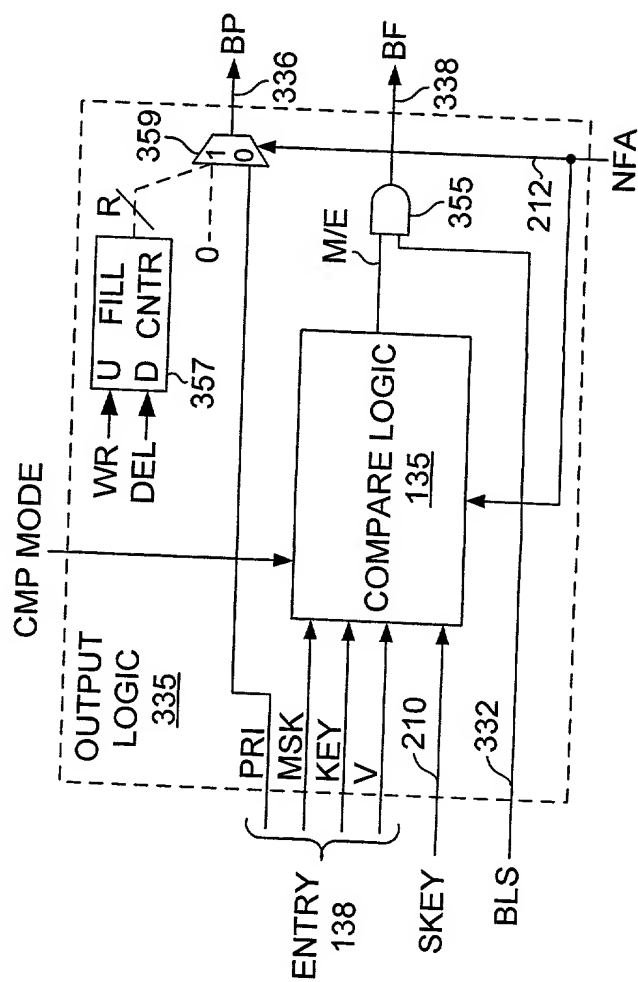
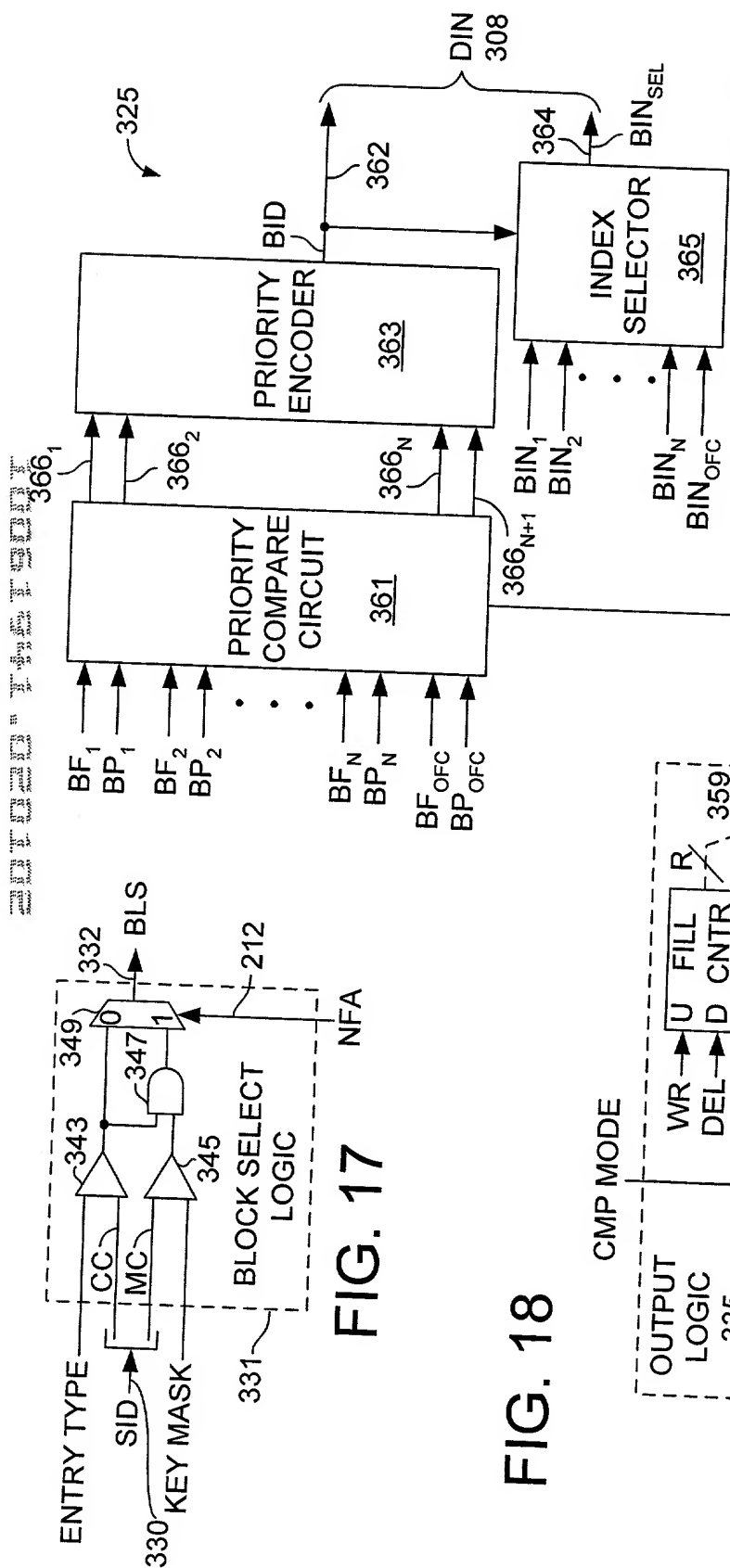


FIG. 16



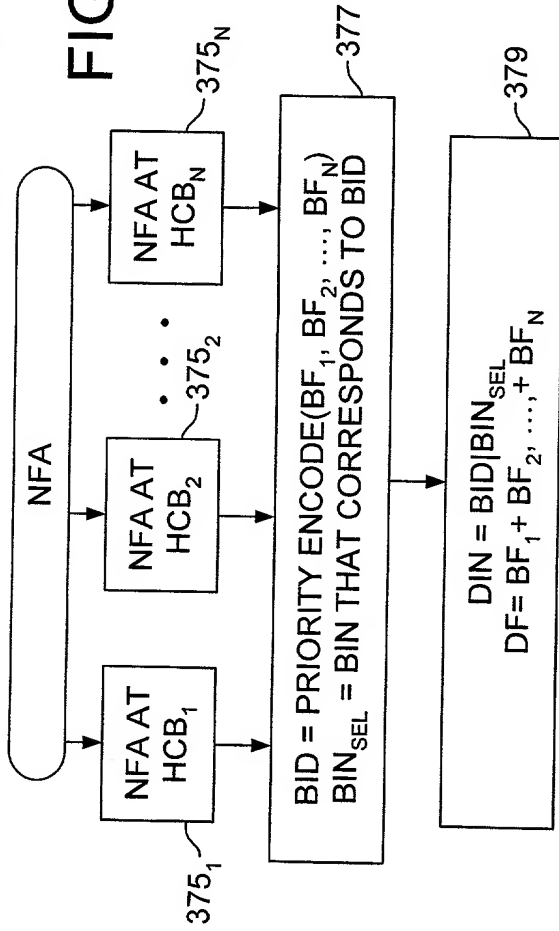


FIG. 20

FIG. 21

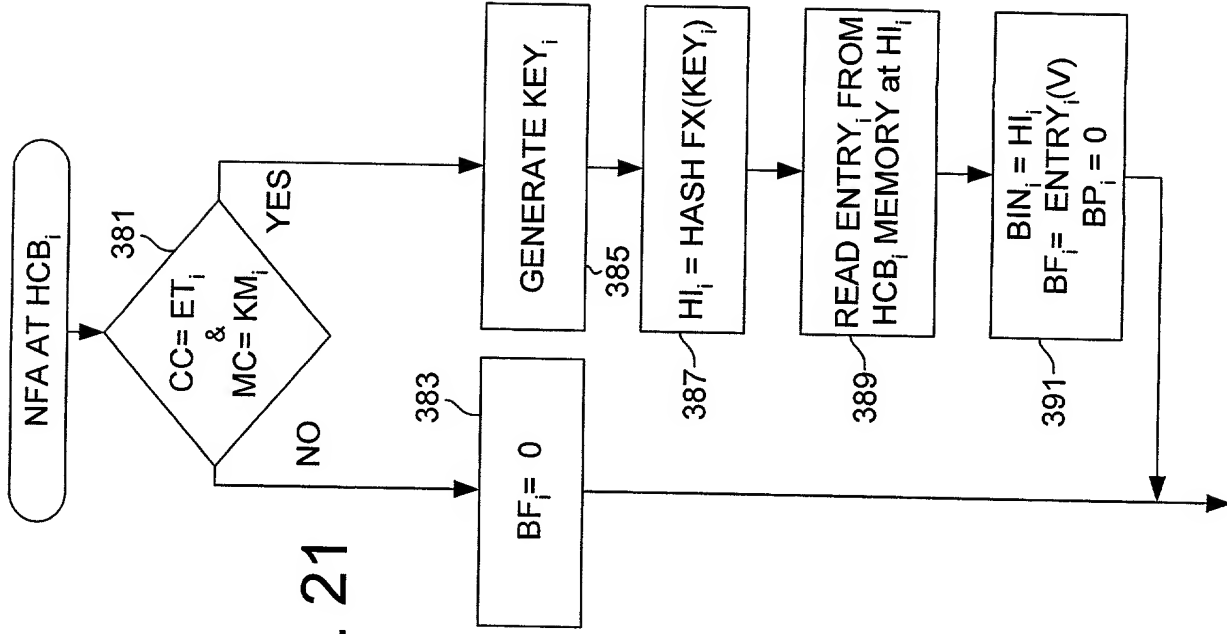
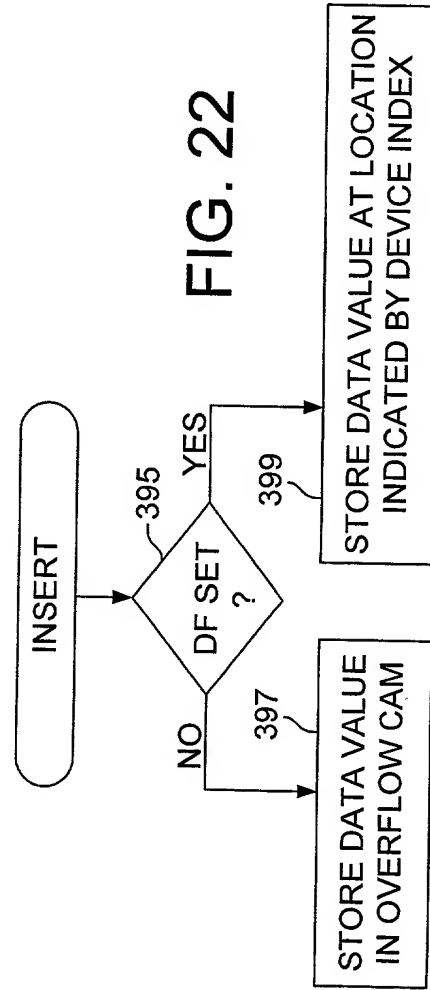


FIG. 22



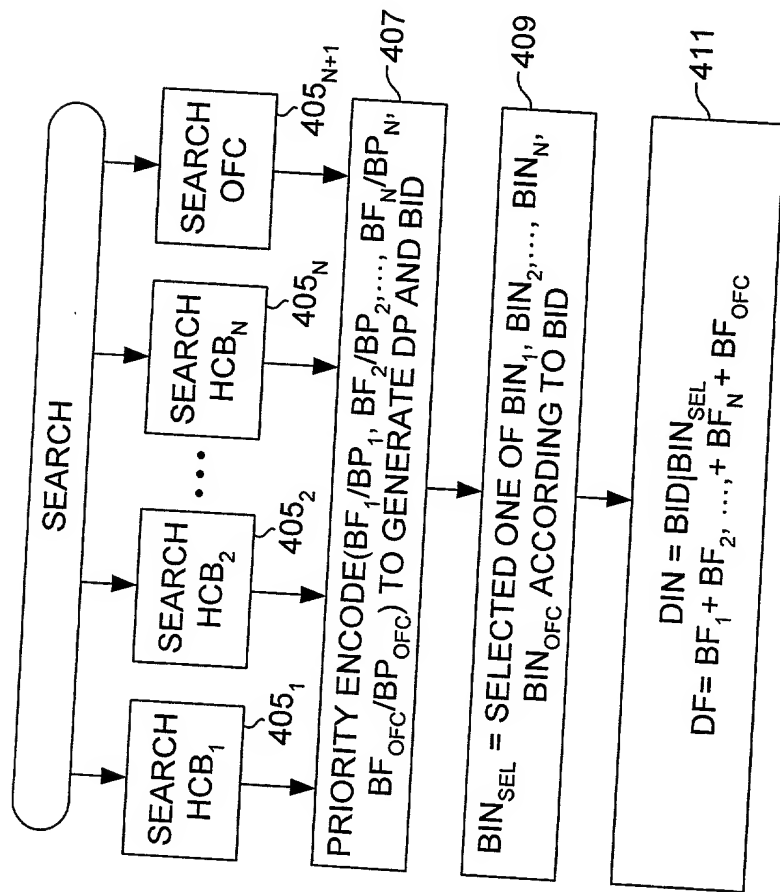


FIG. 23

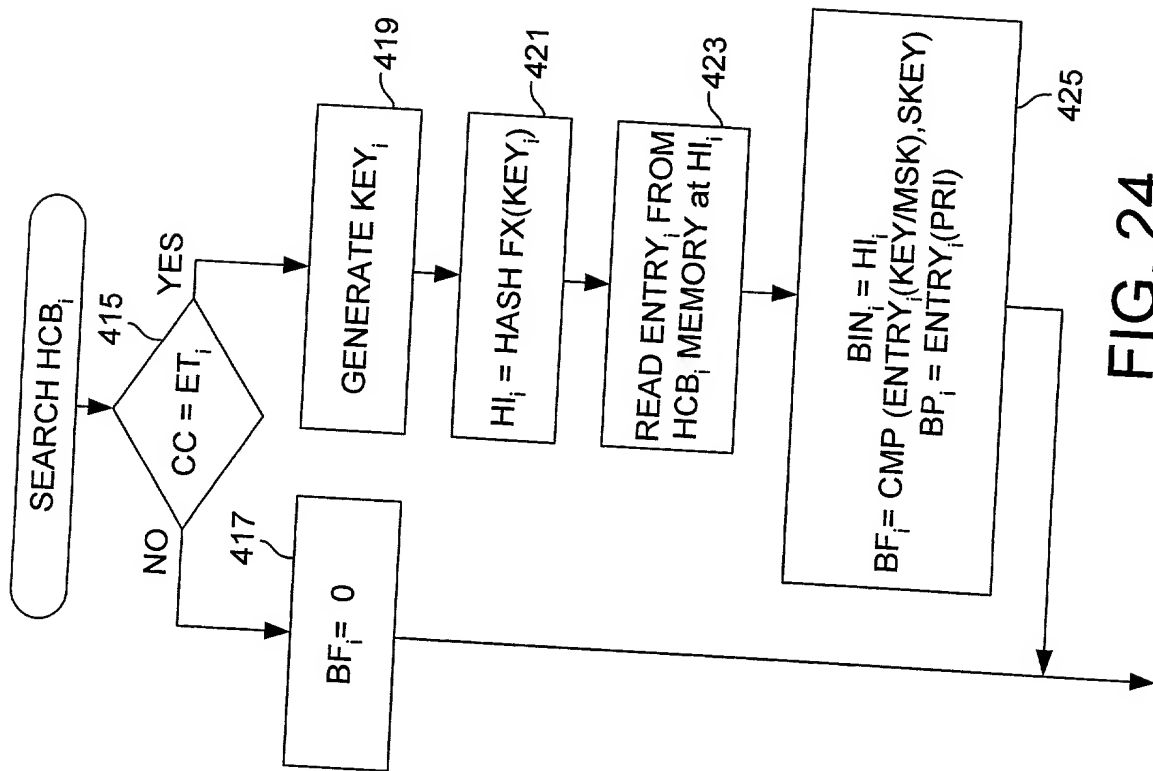


FIG. 24

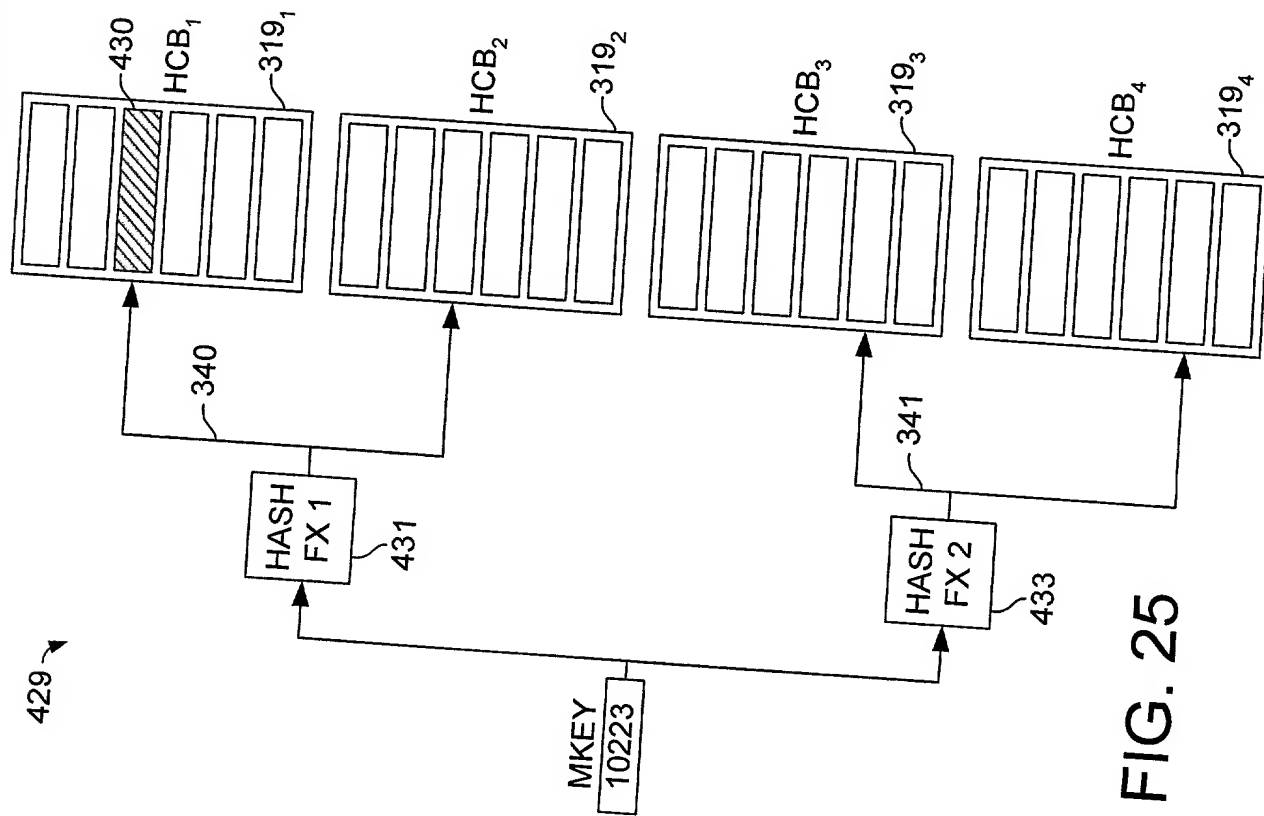


FIG. 25

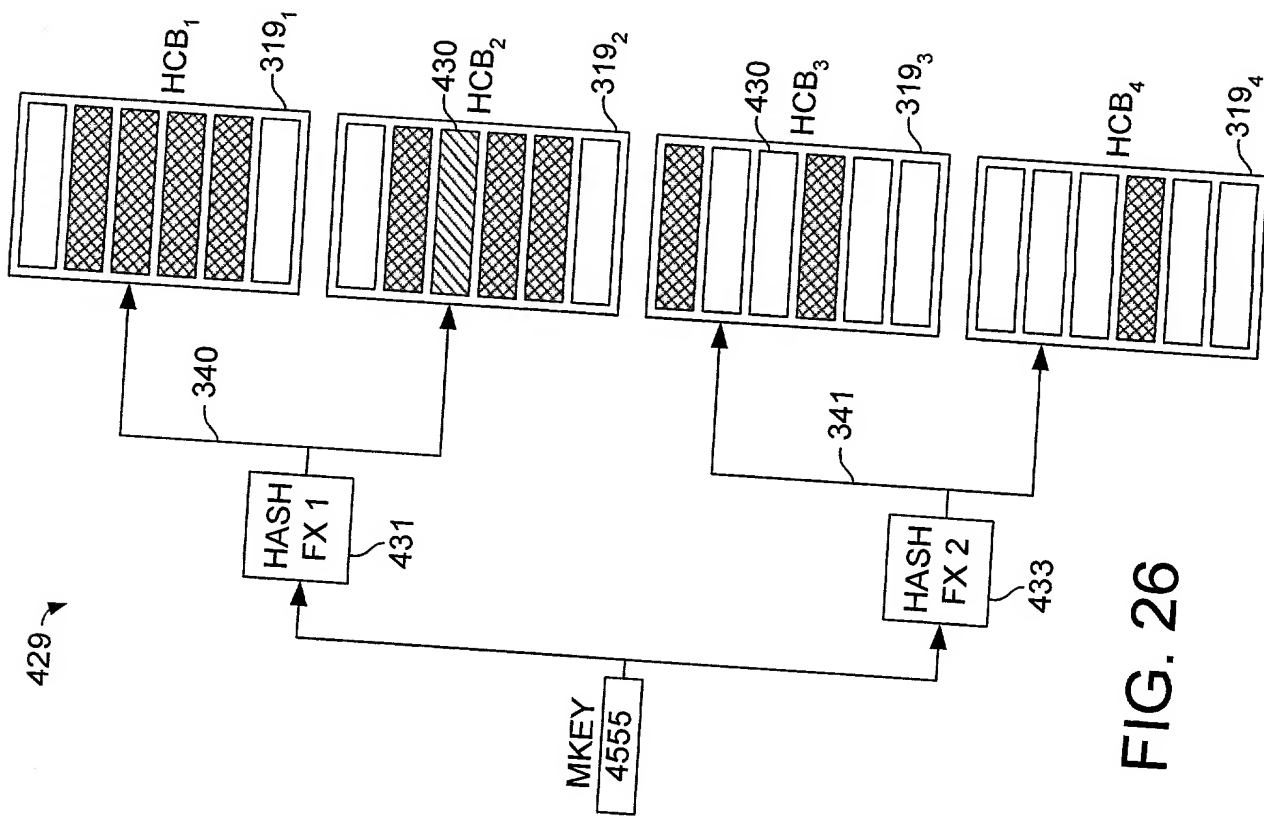


FIG. 26

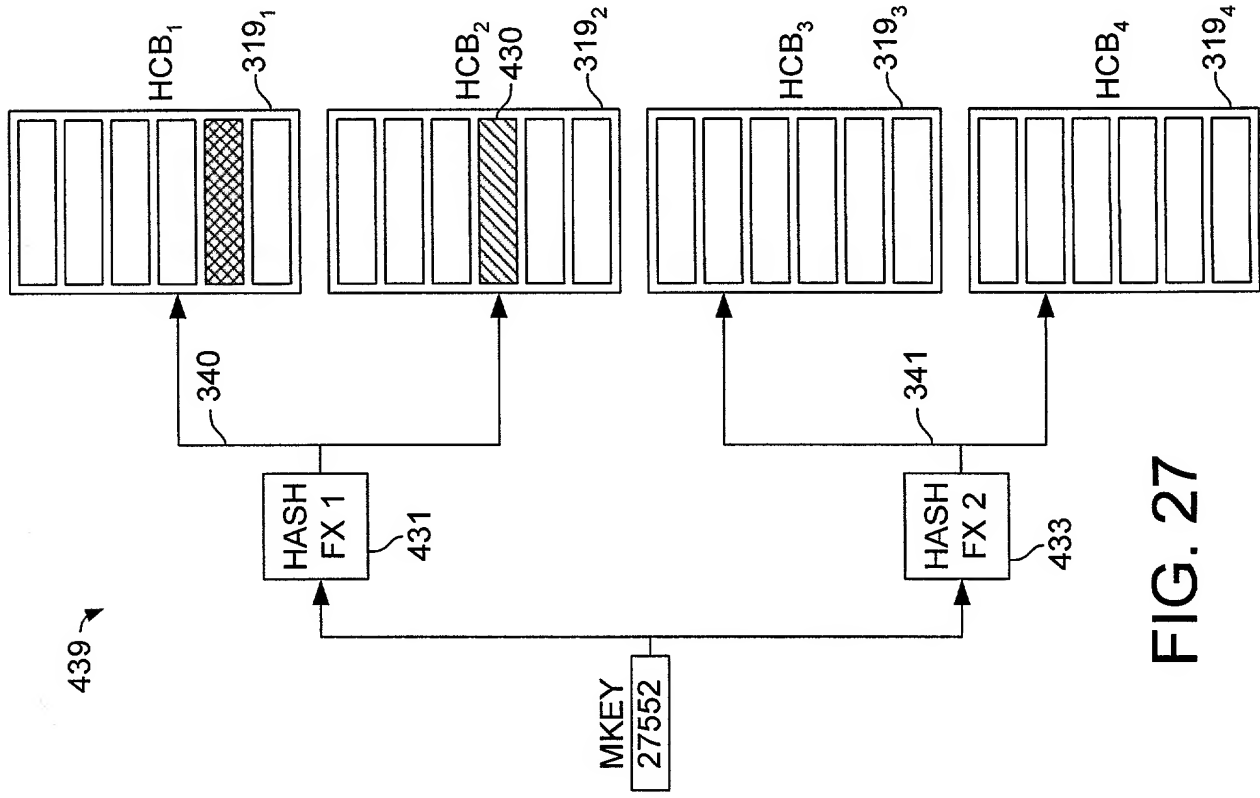


FIG. 27

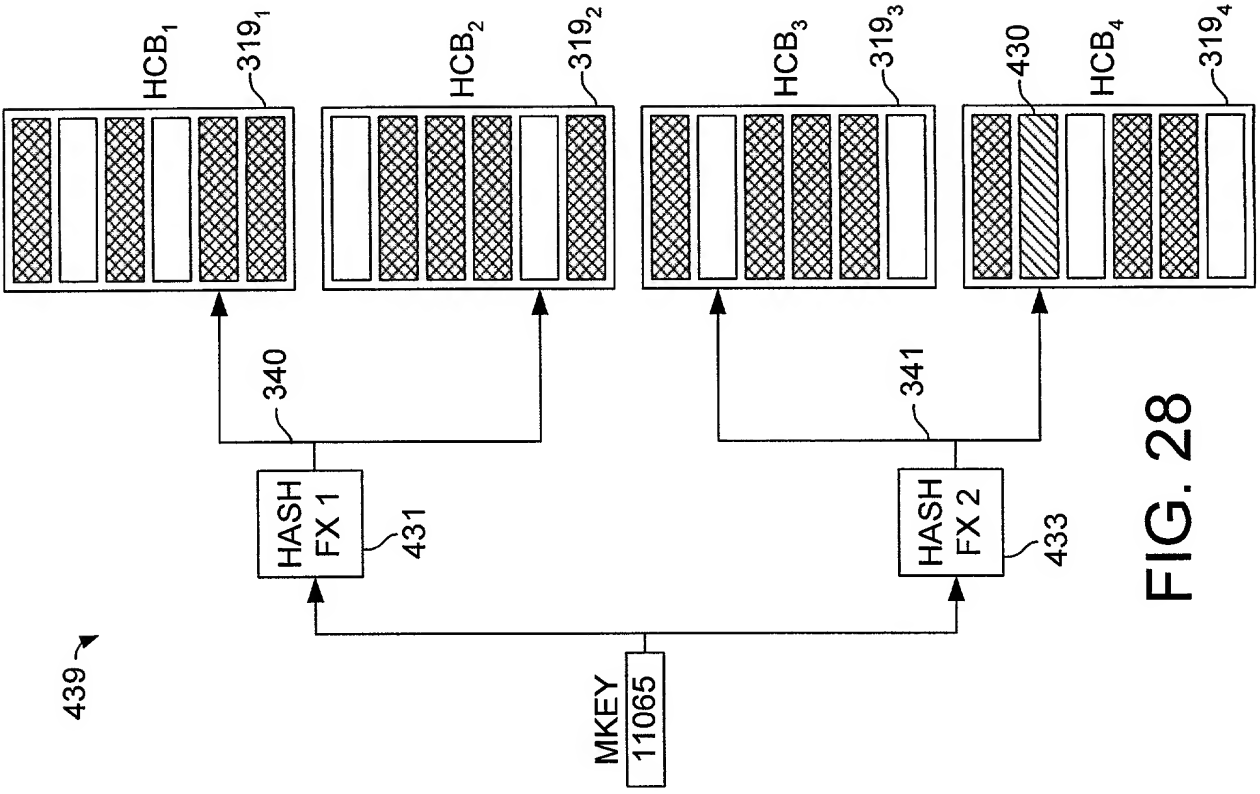


FIG. 28

FIG. 29

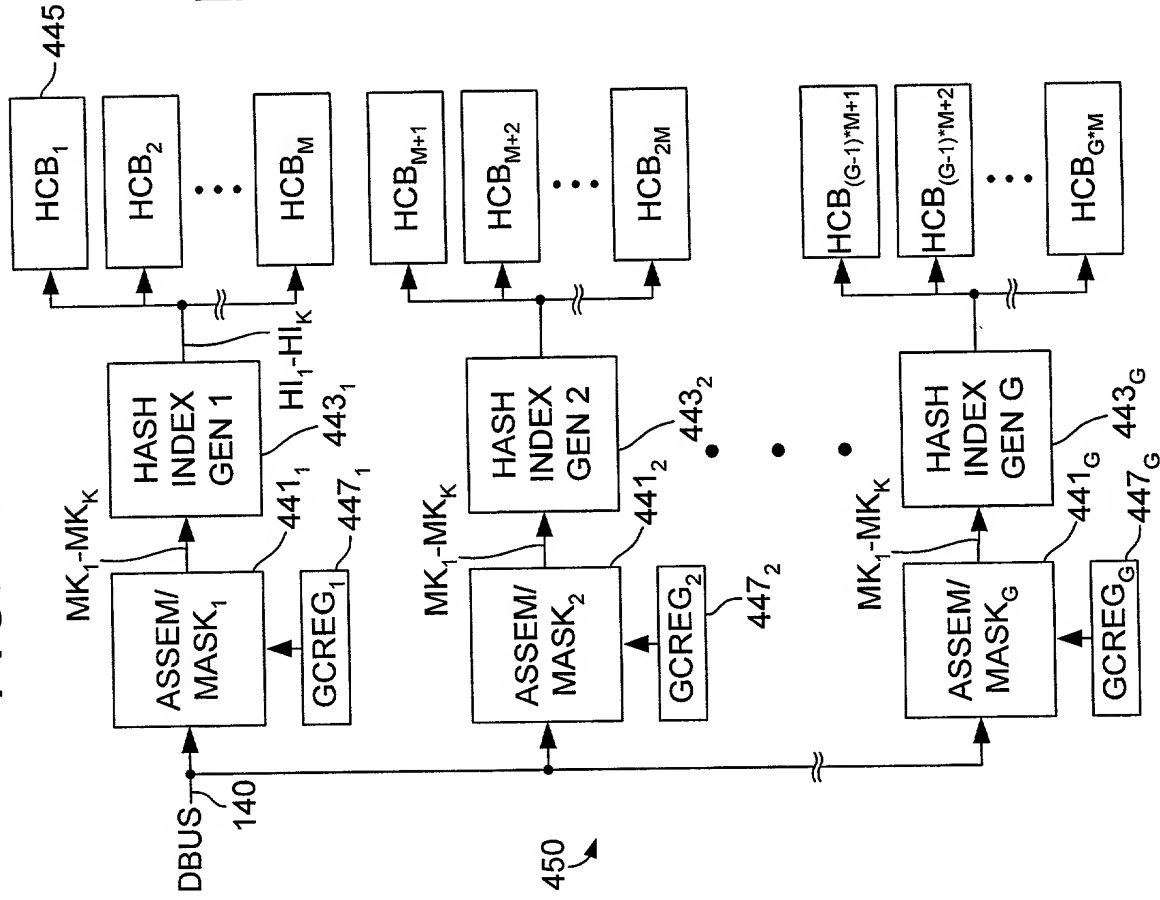
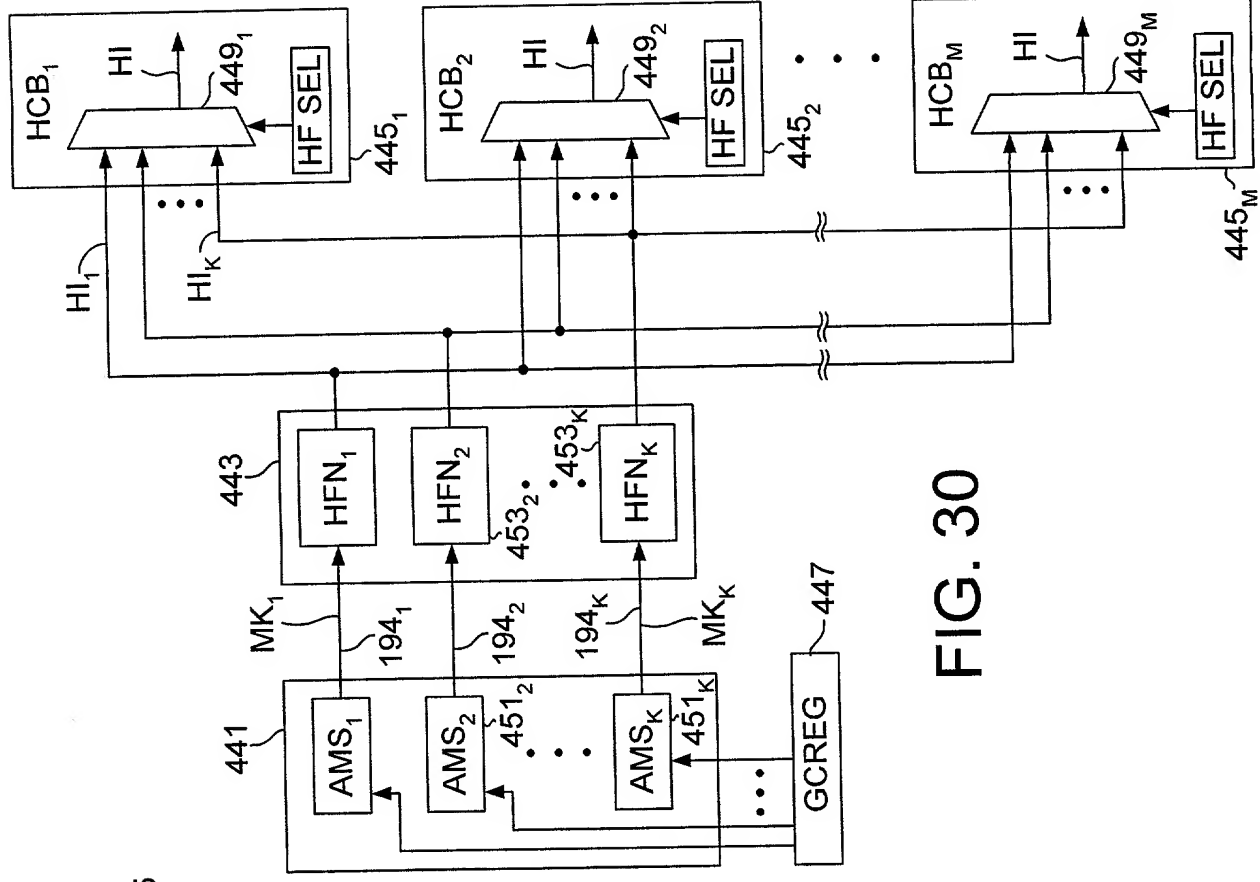


FIG. 30



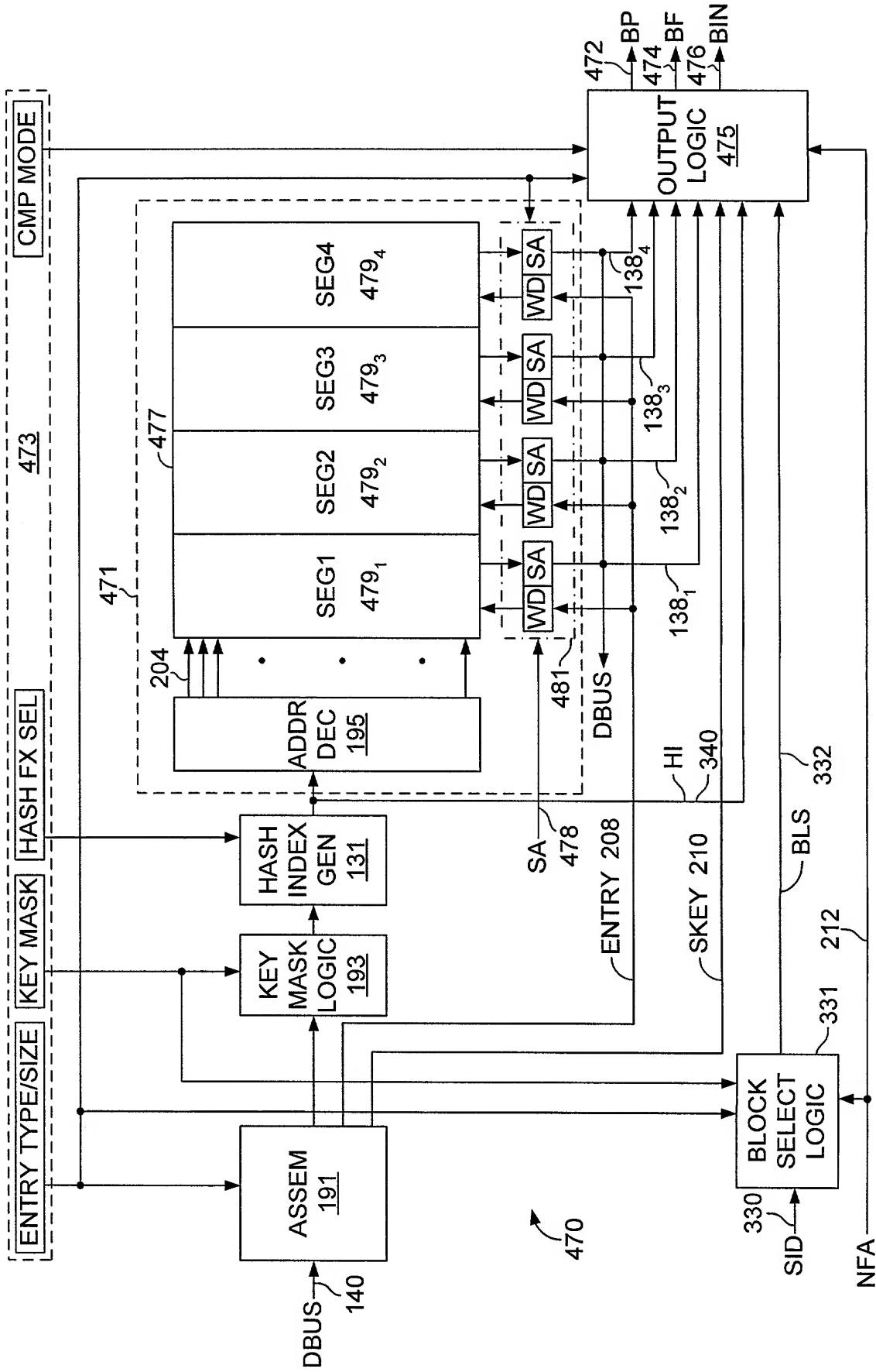
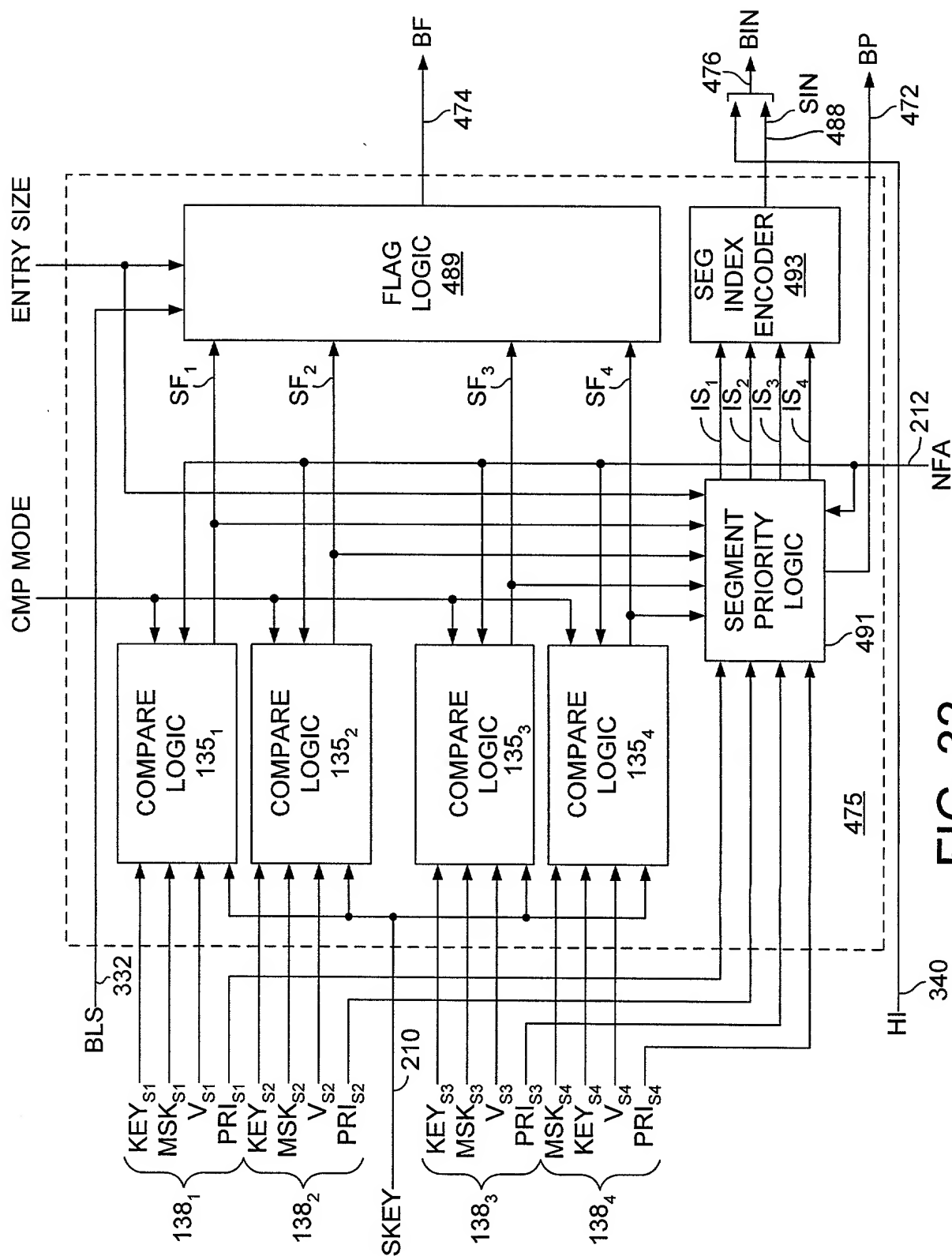


FIG. 31



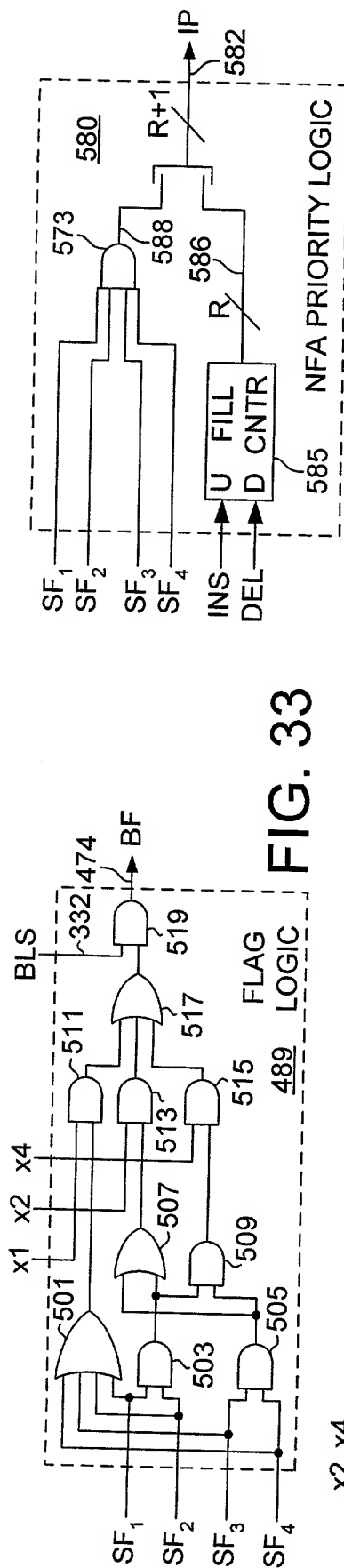


FIG. 33

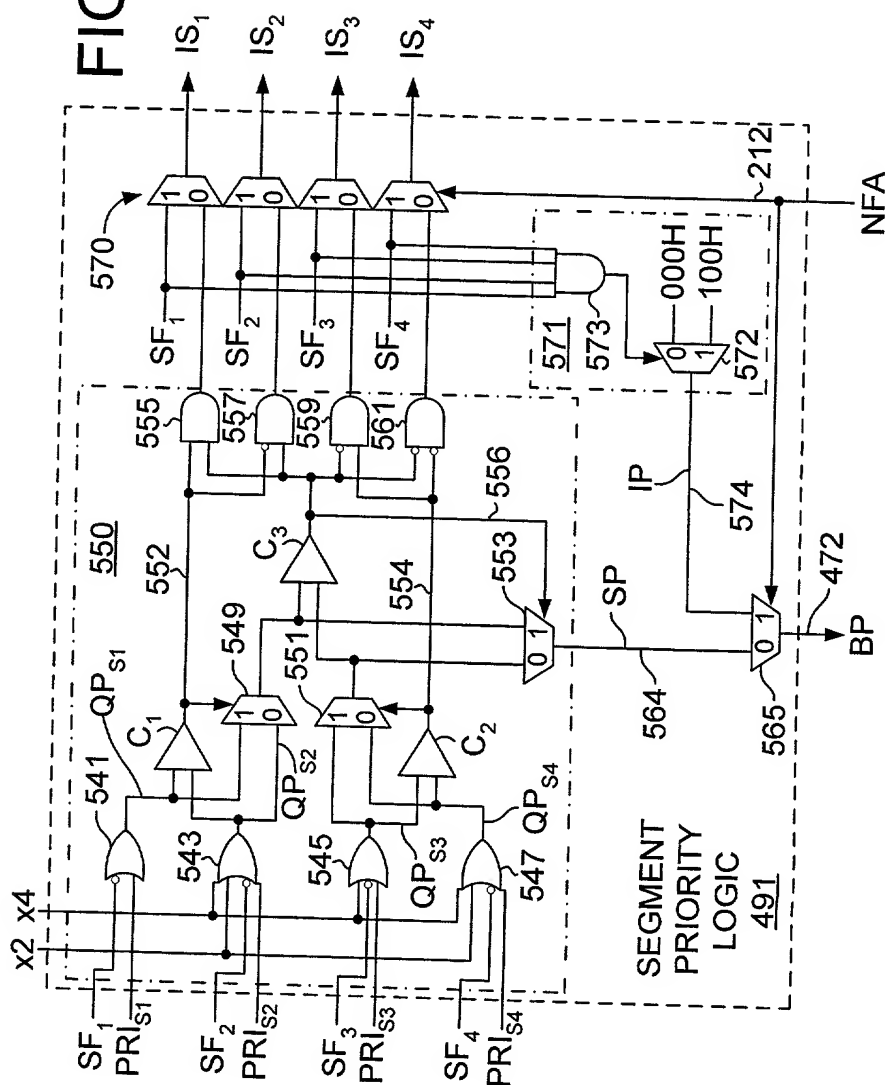


FIG. 34

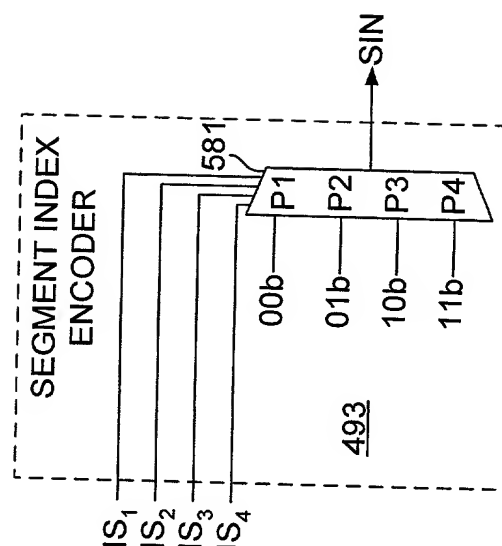


FIG. 36

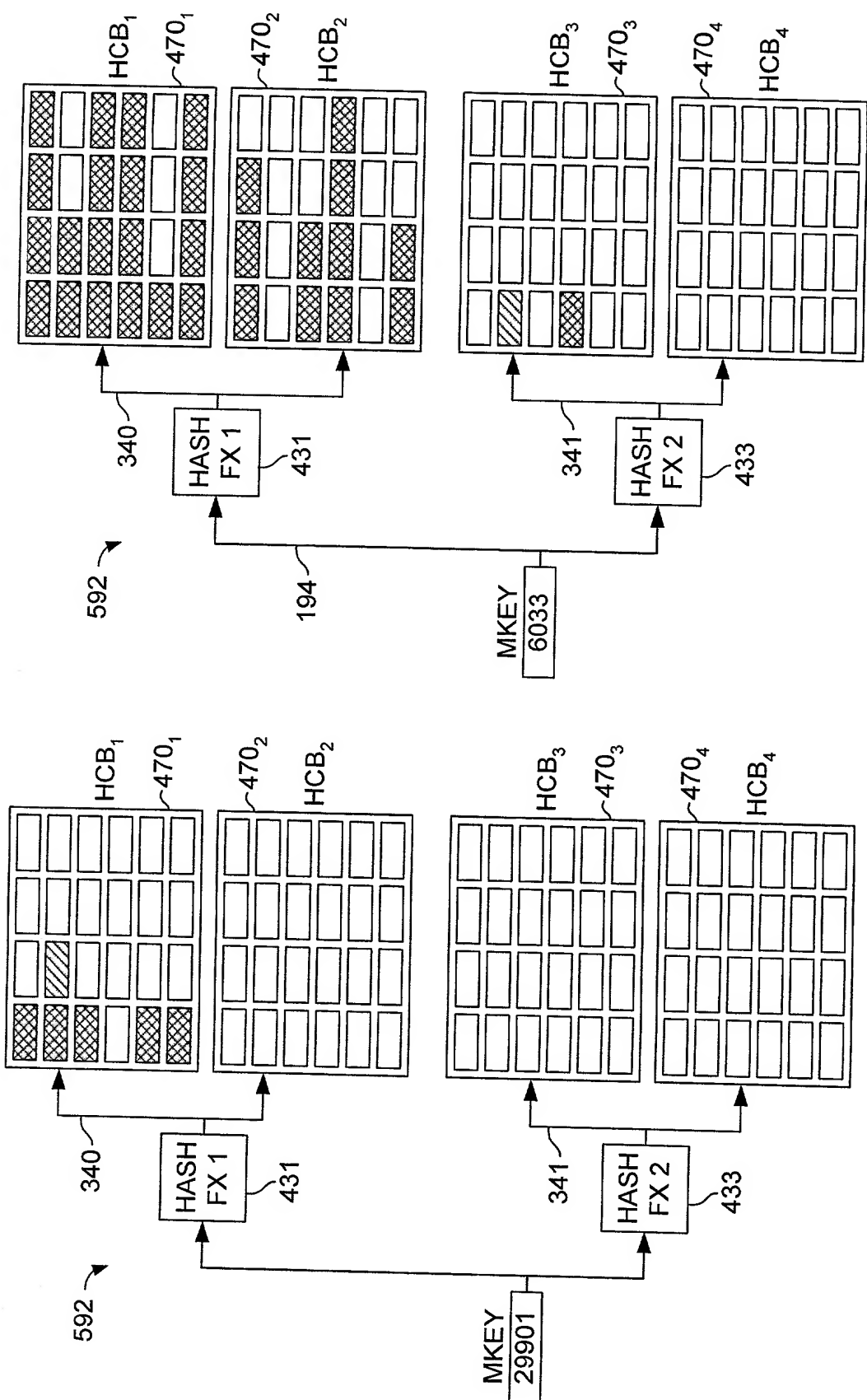


FIG. 37

FIG. 38

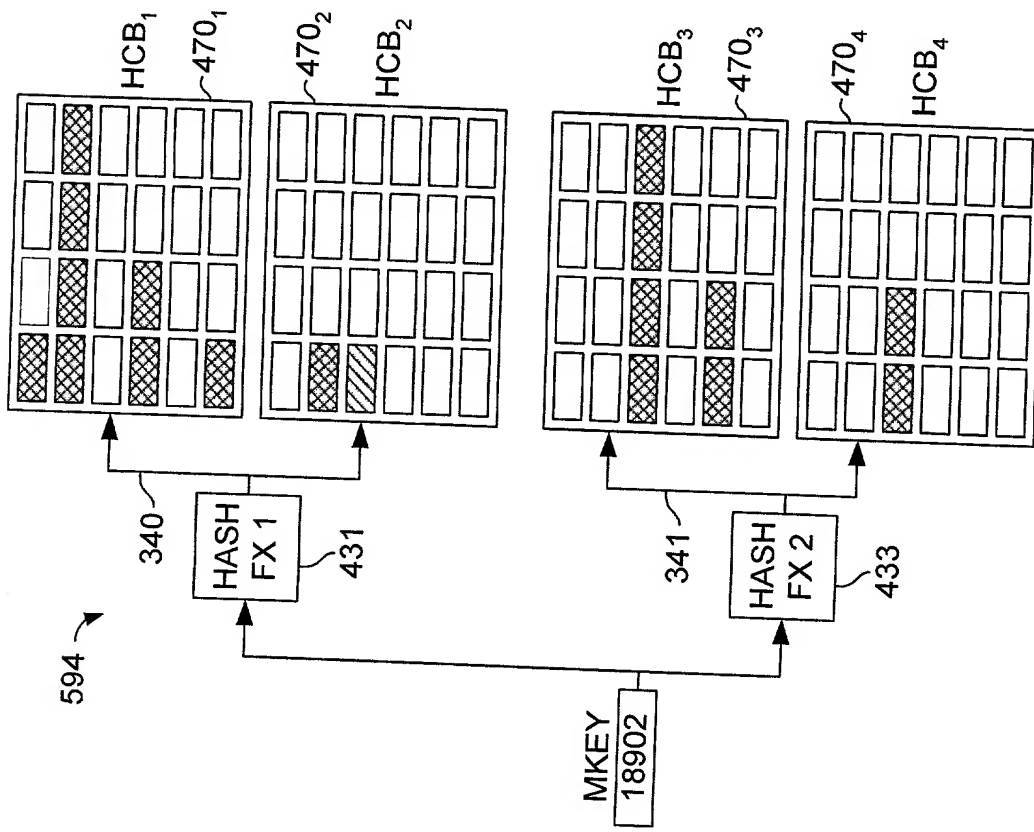


FIG. 39

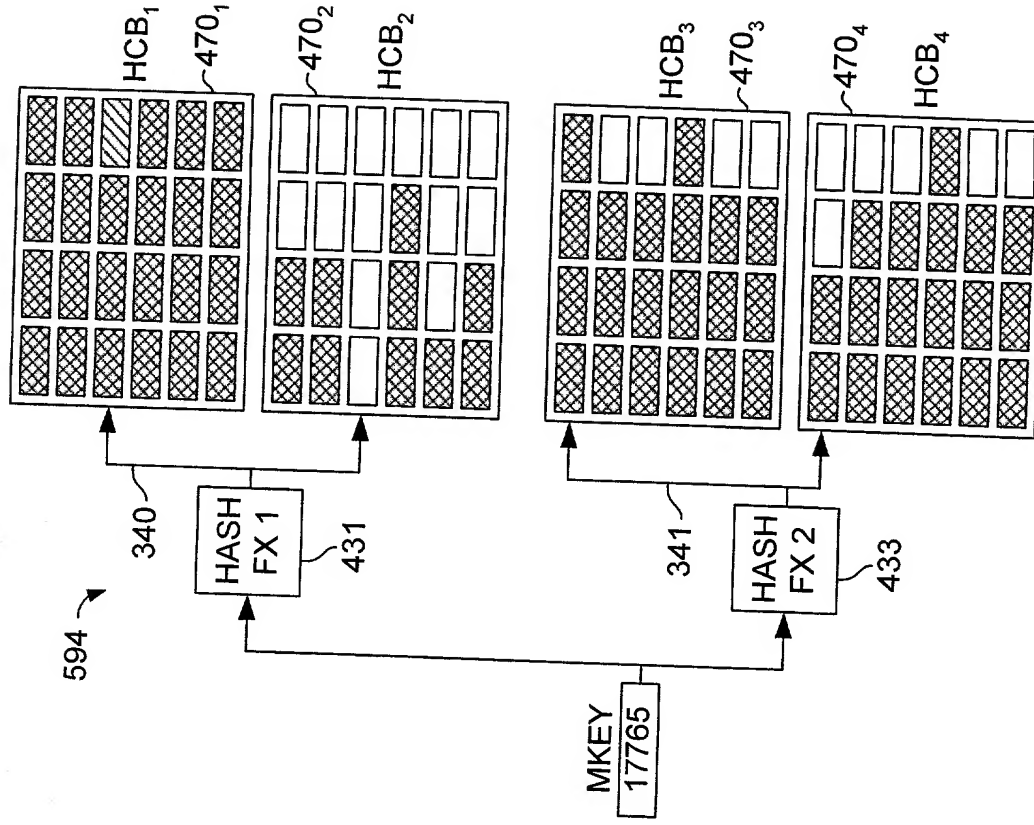


FIG. 40

FIG. 41

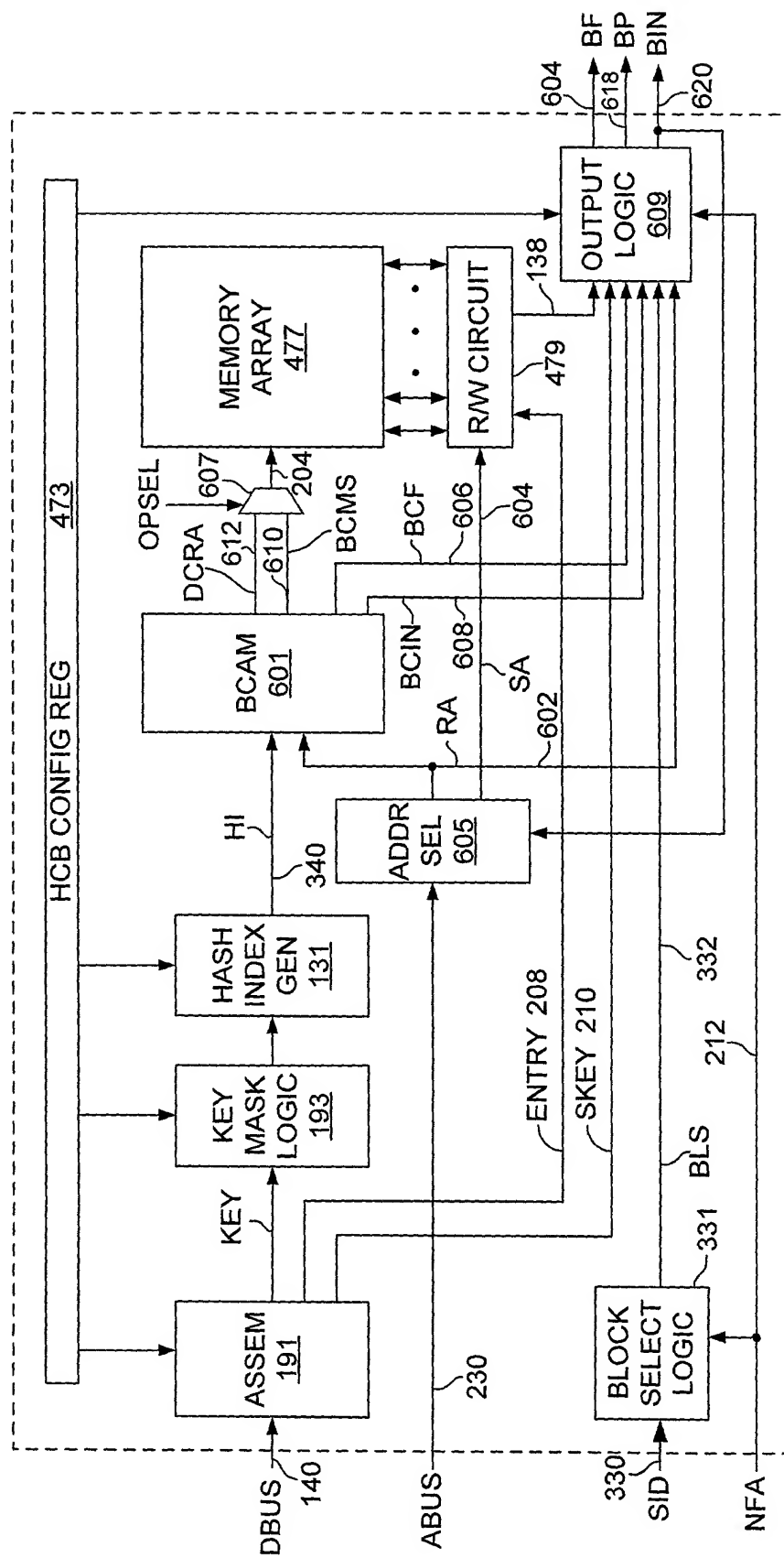
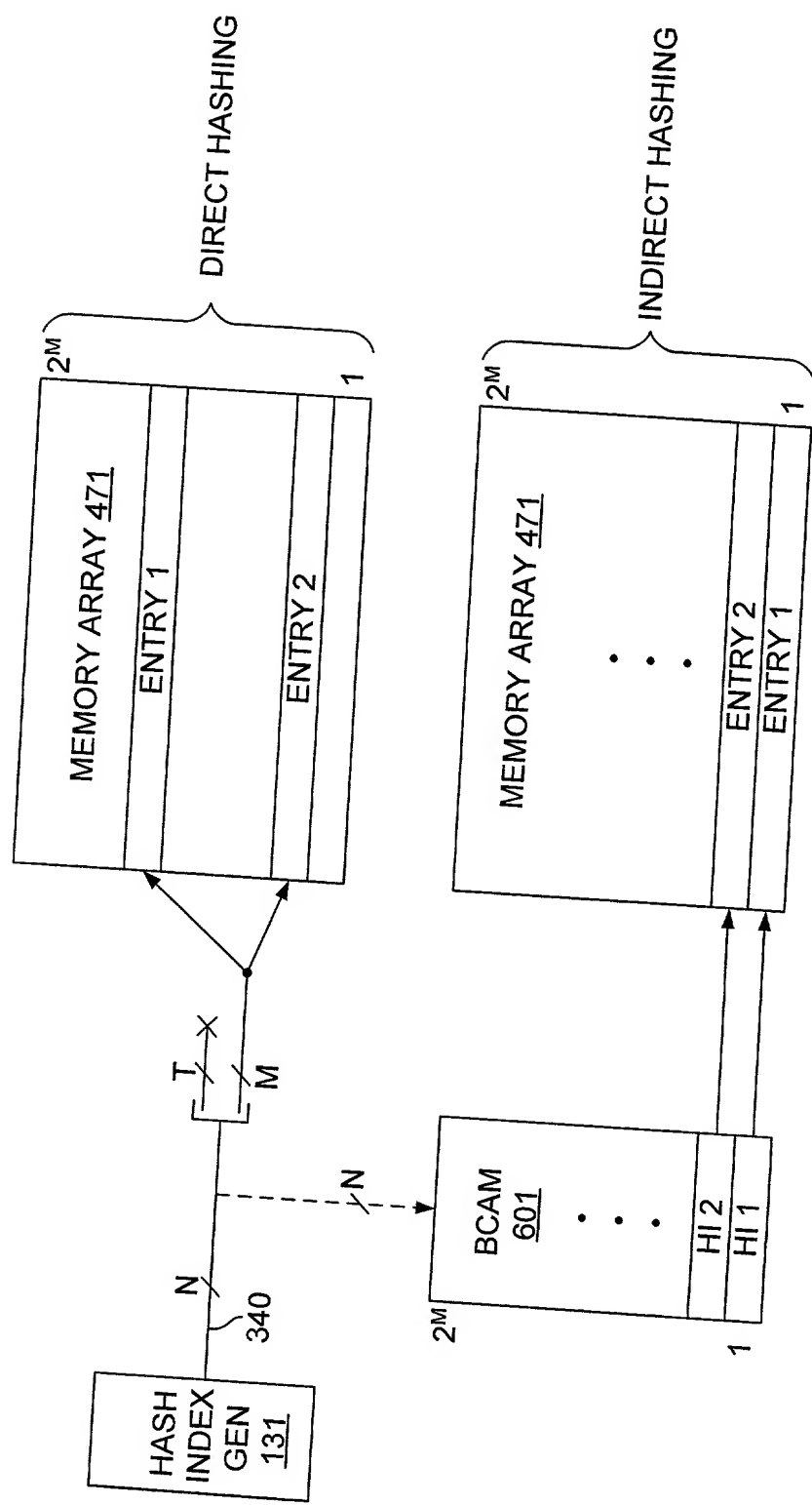


FIG. 42



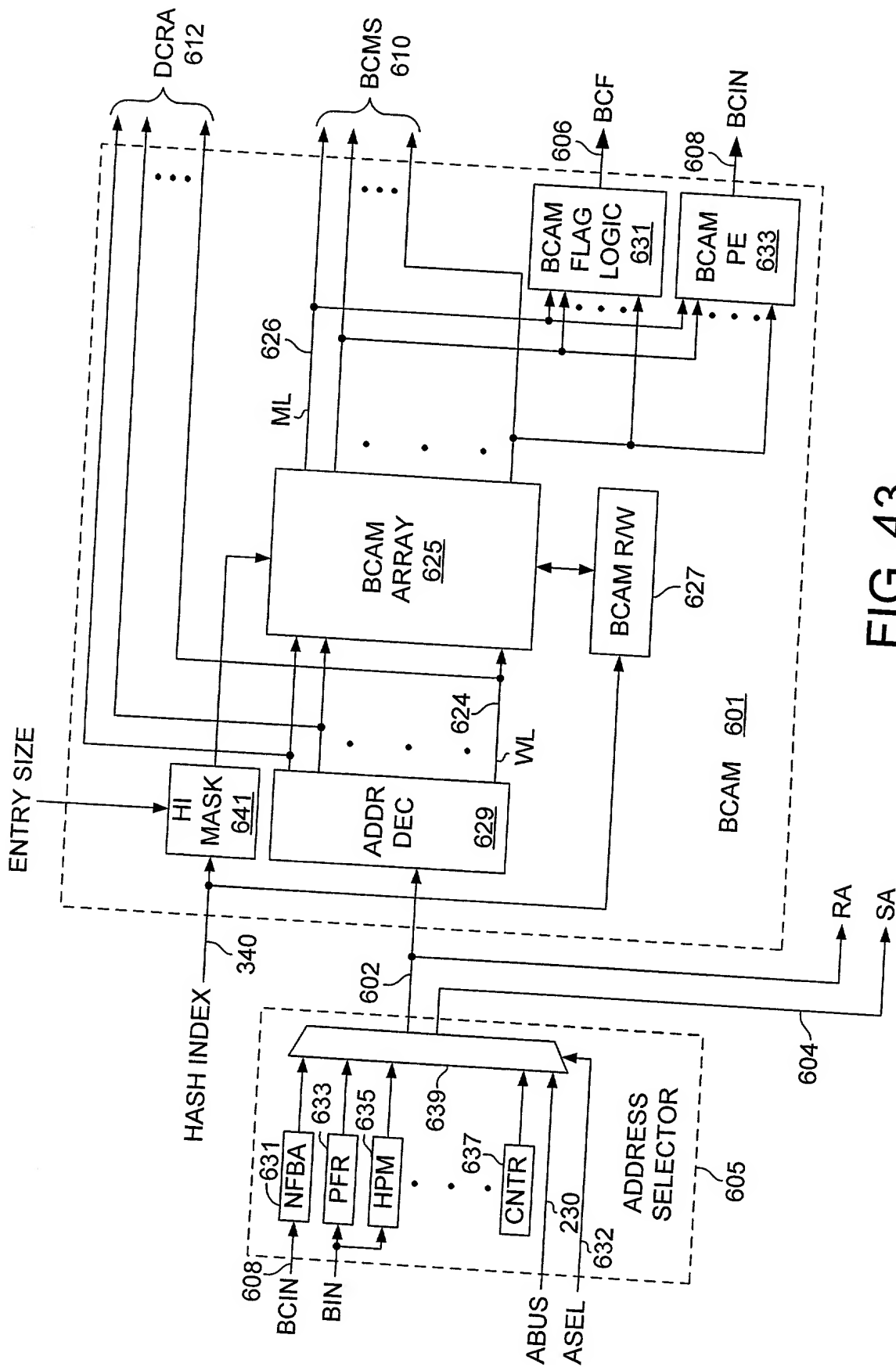
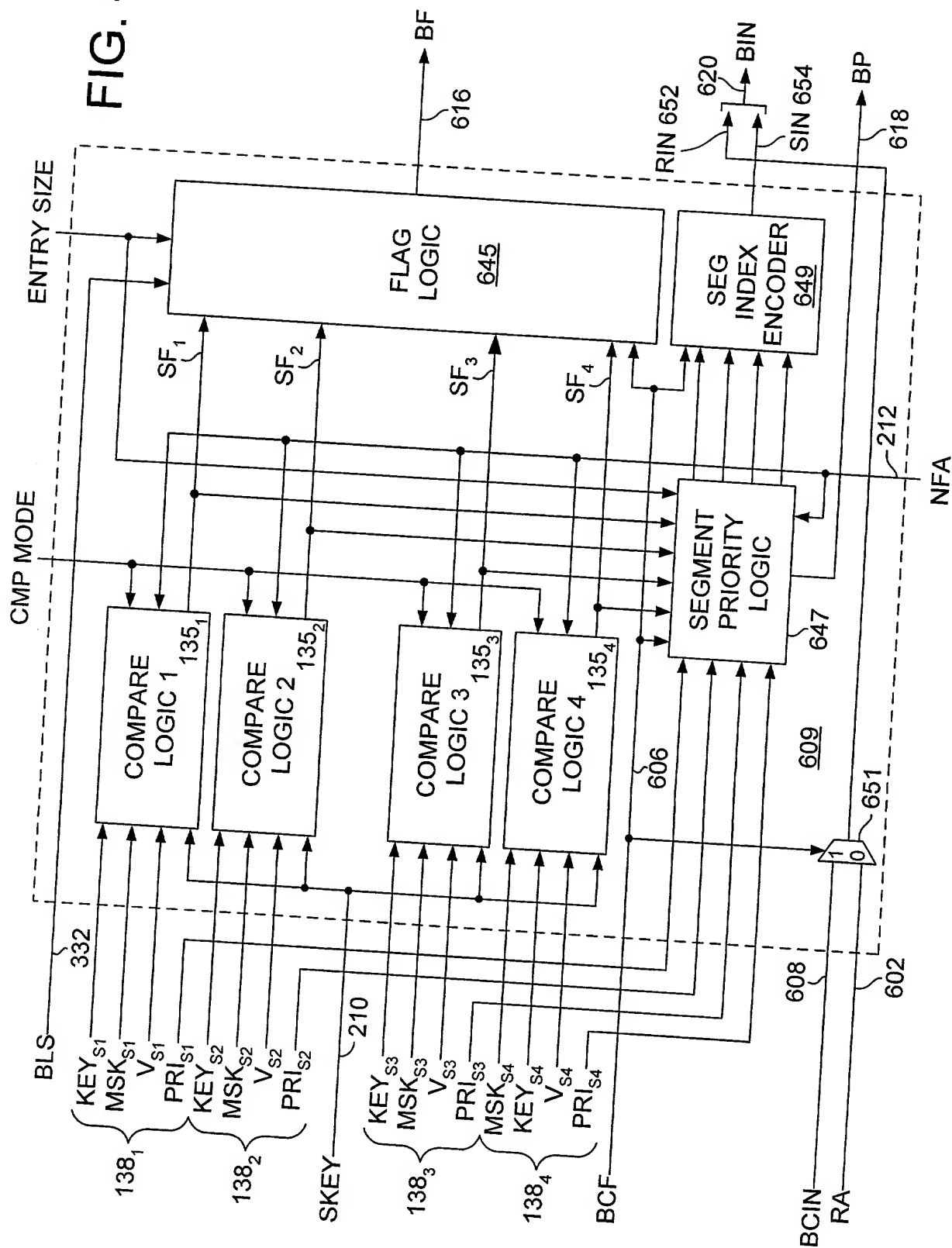


FIG. 43

FIG. 44



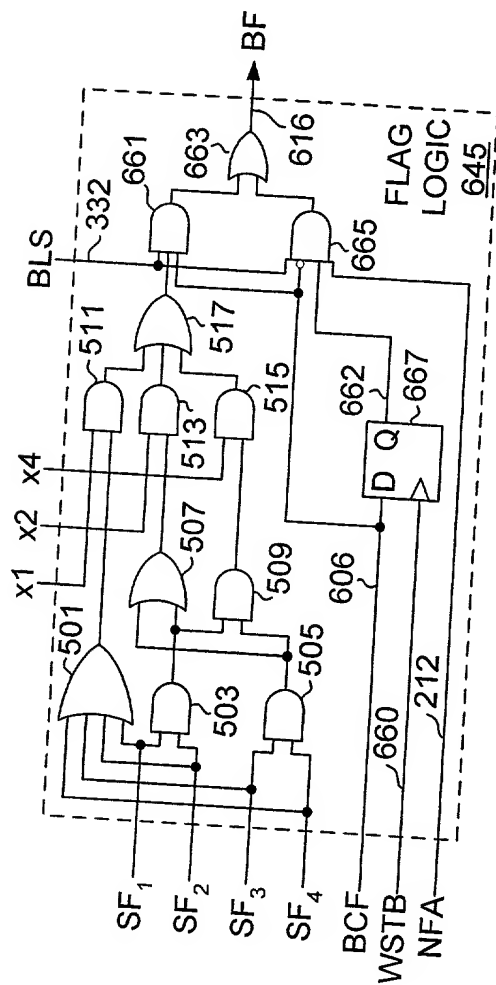


FIG. 45

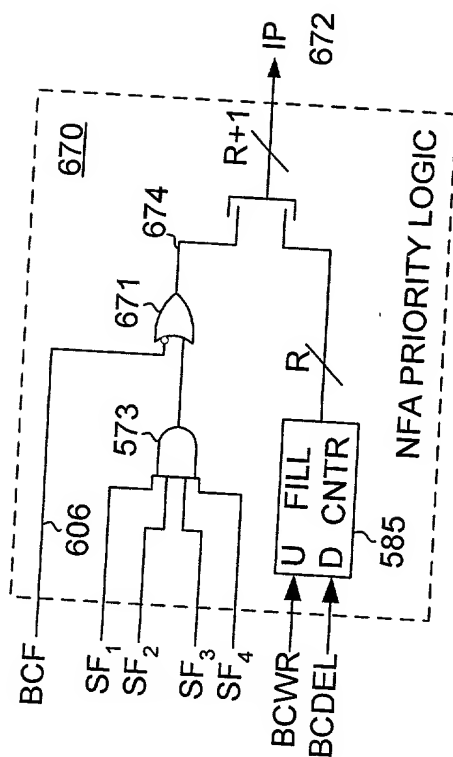


FIG. 46

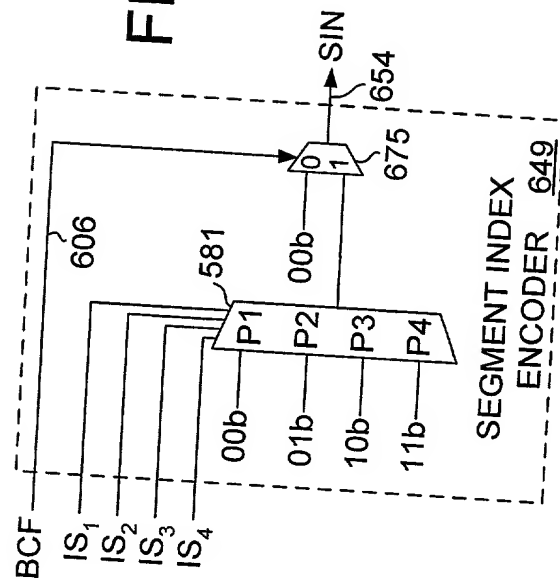


FIG. 47

FIG. 48

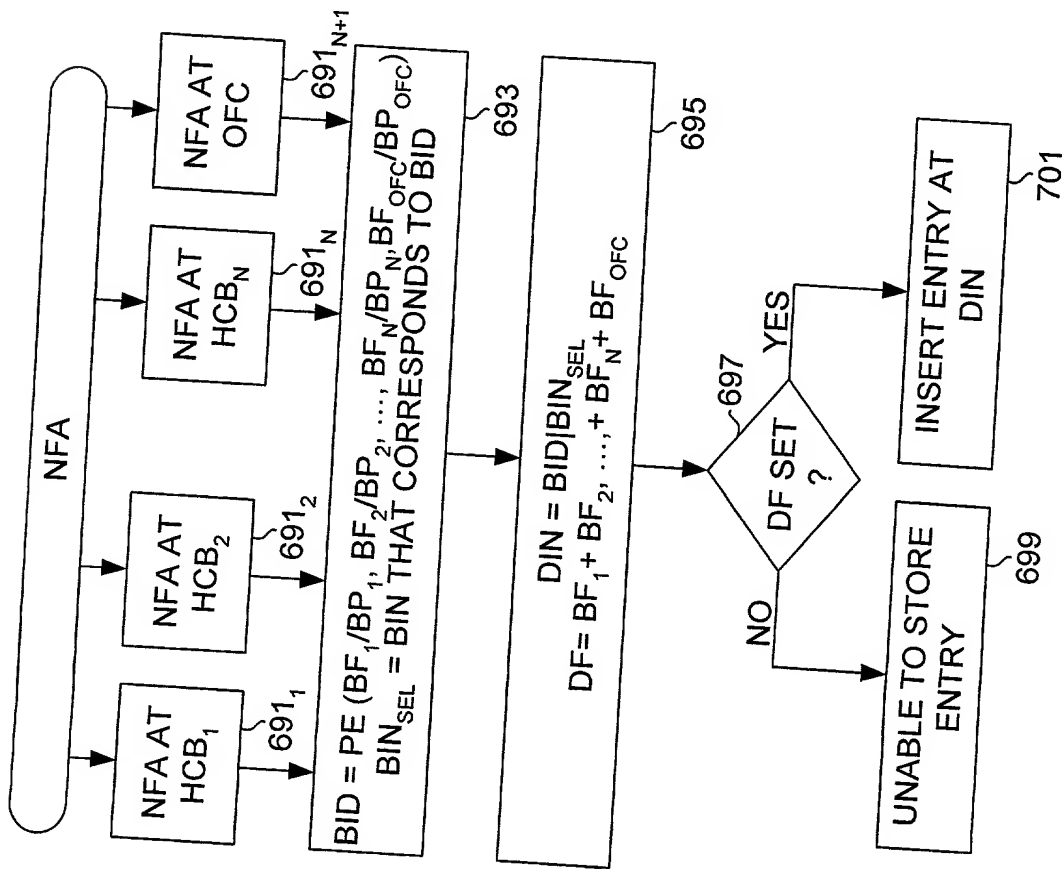
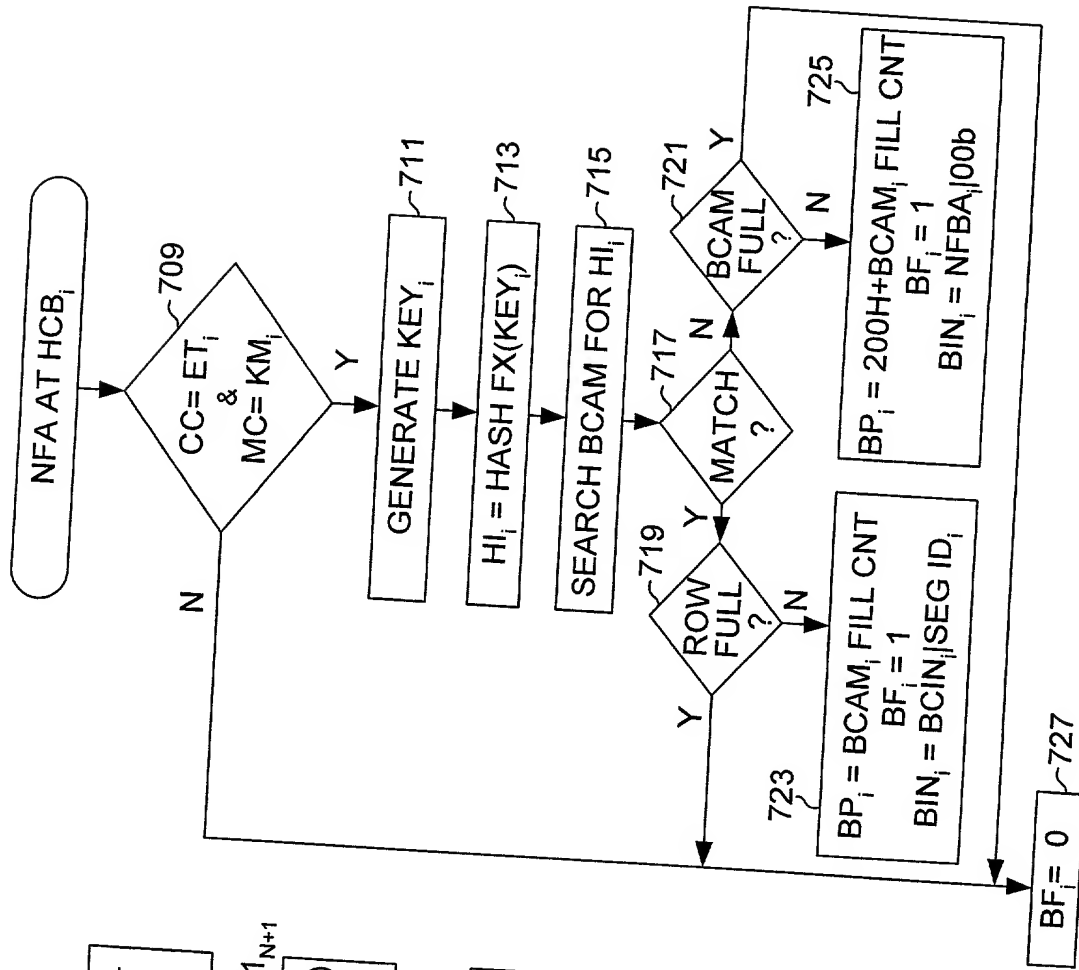


FIG. 49



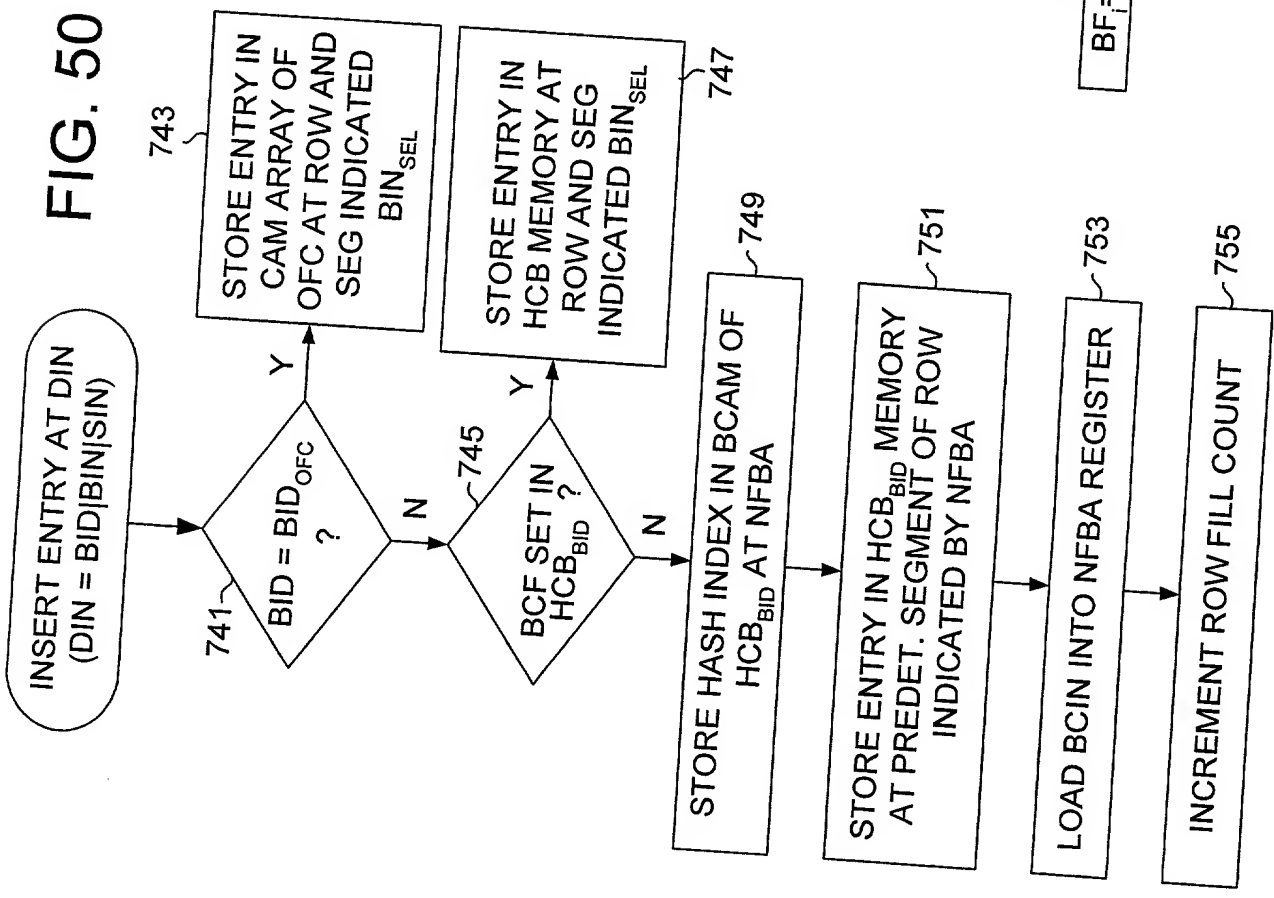


FIG. 50

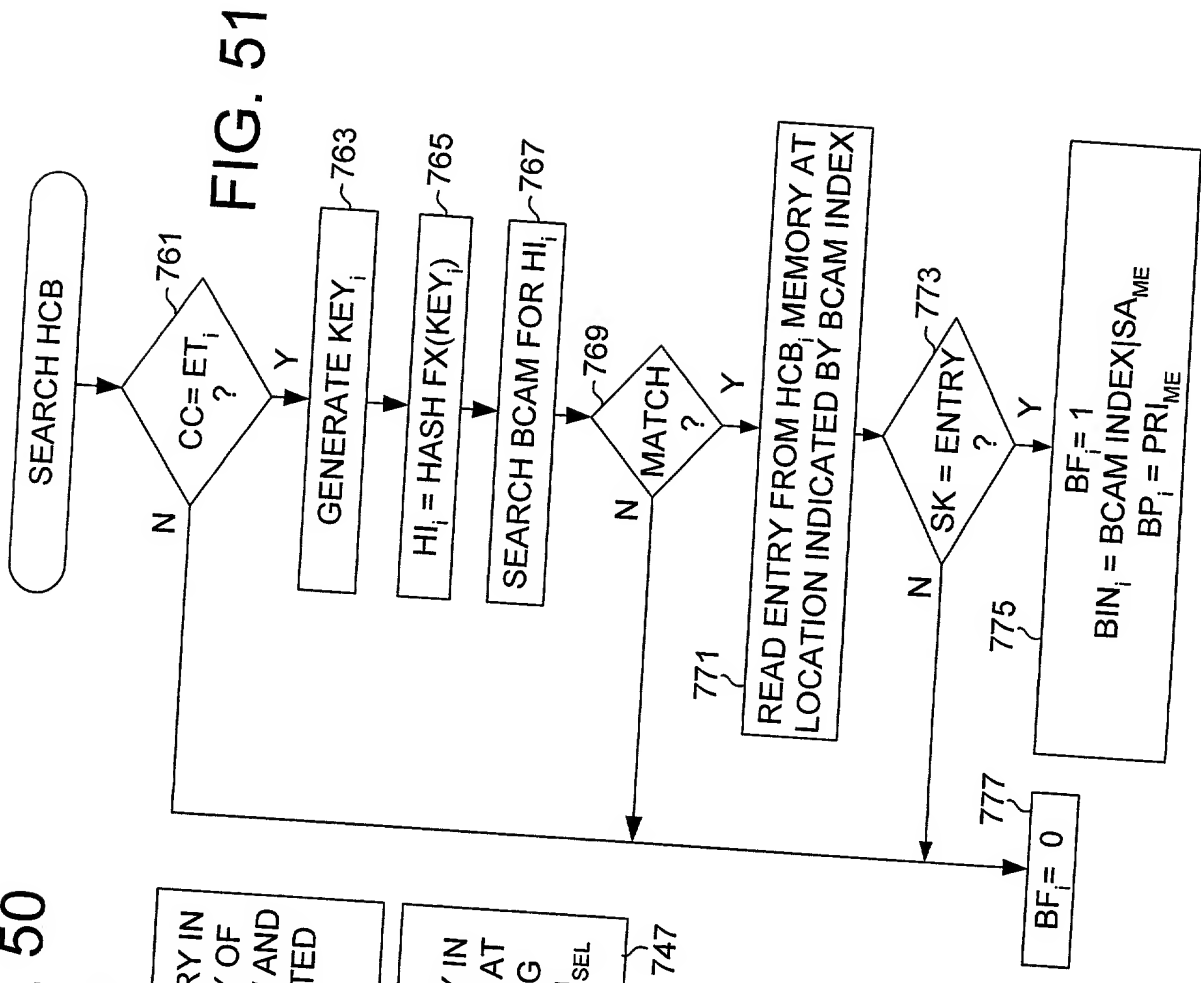
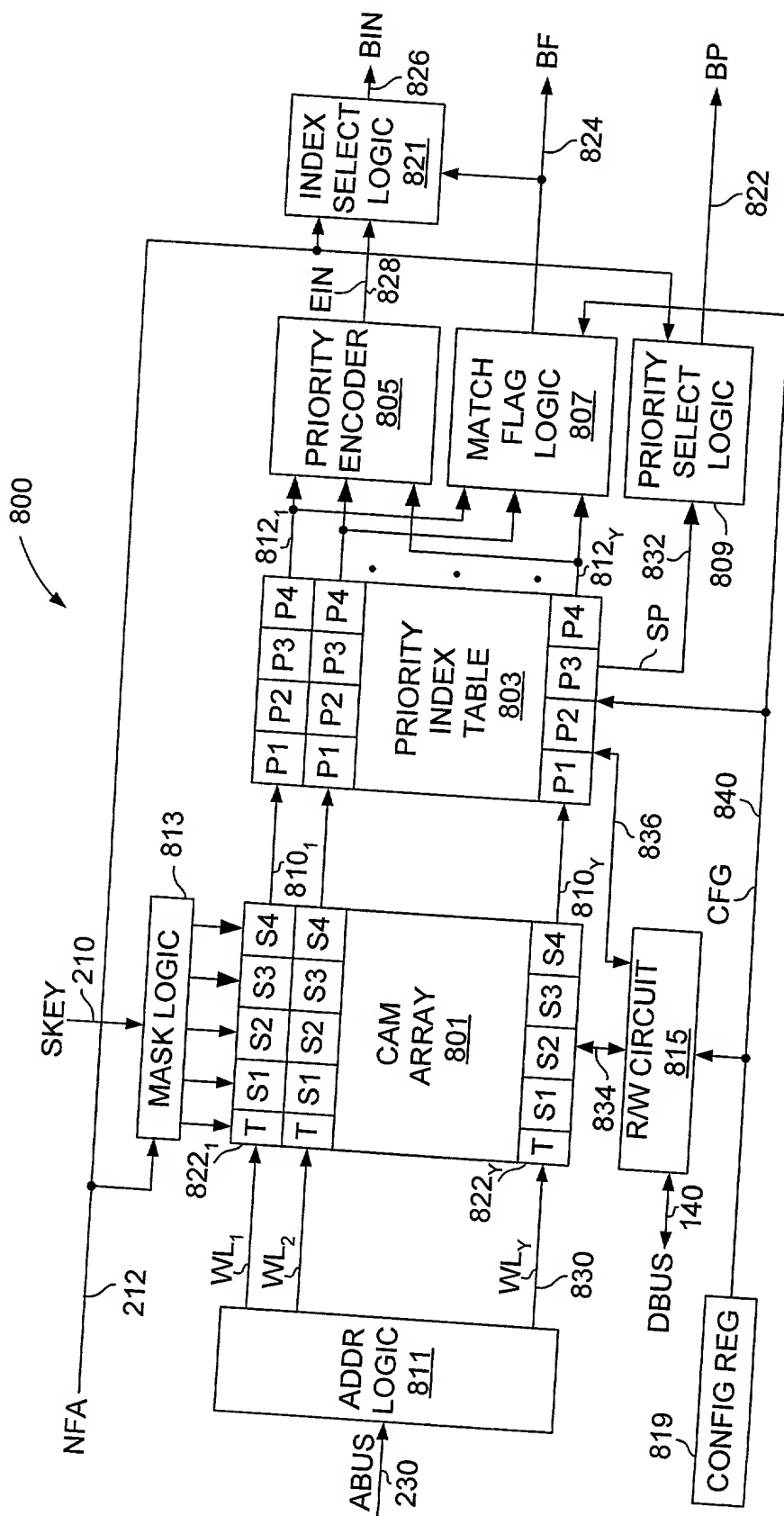


FIG. 51



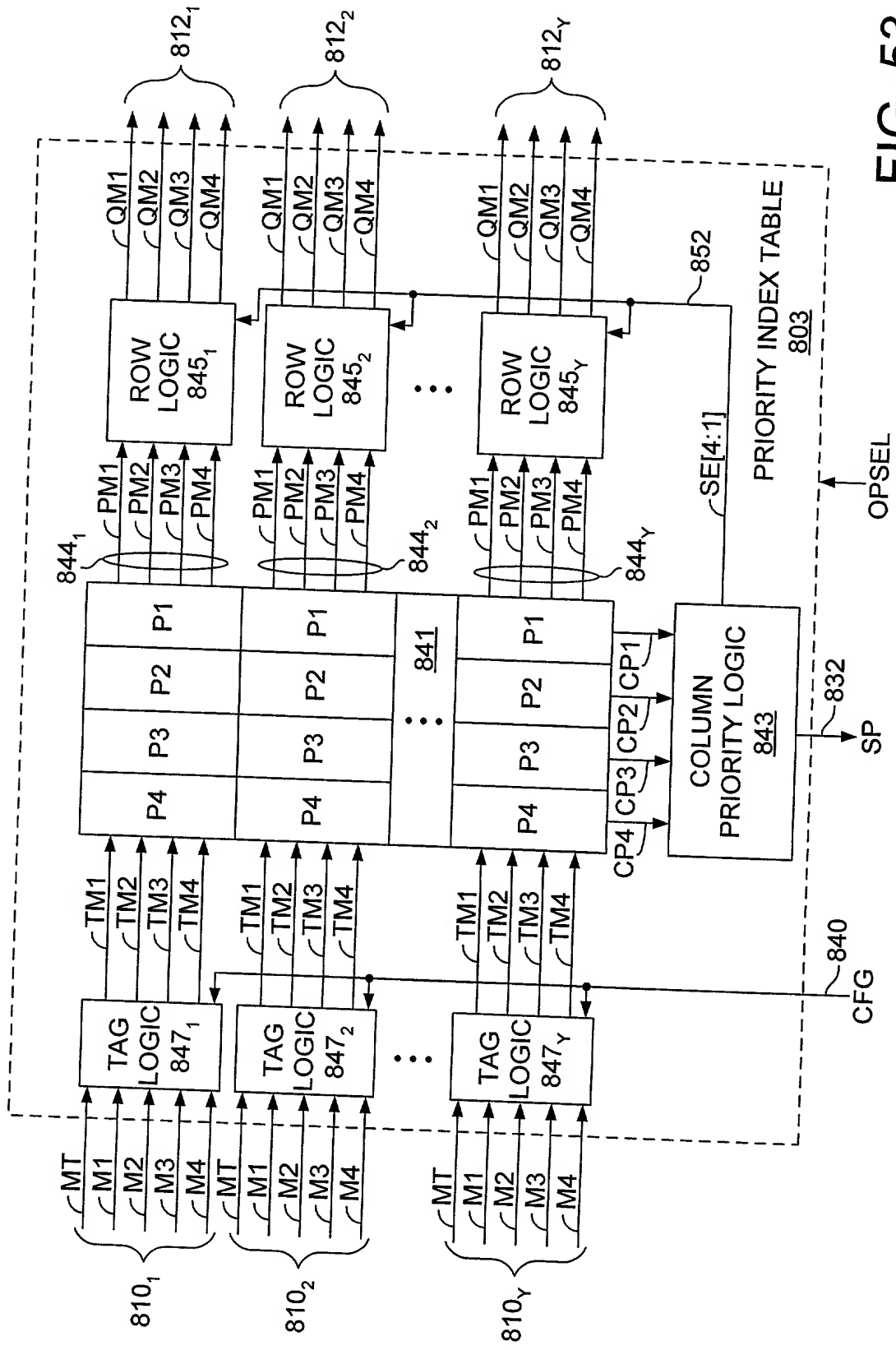


FIG. 53

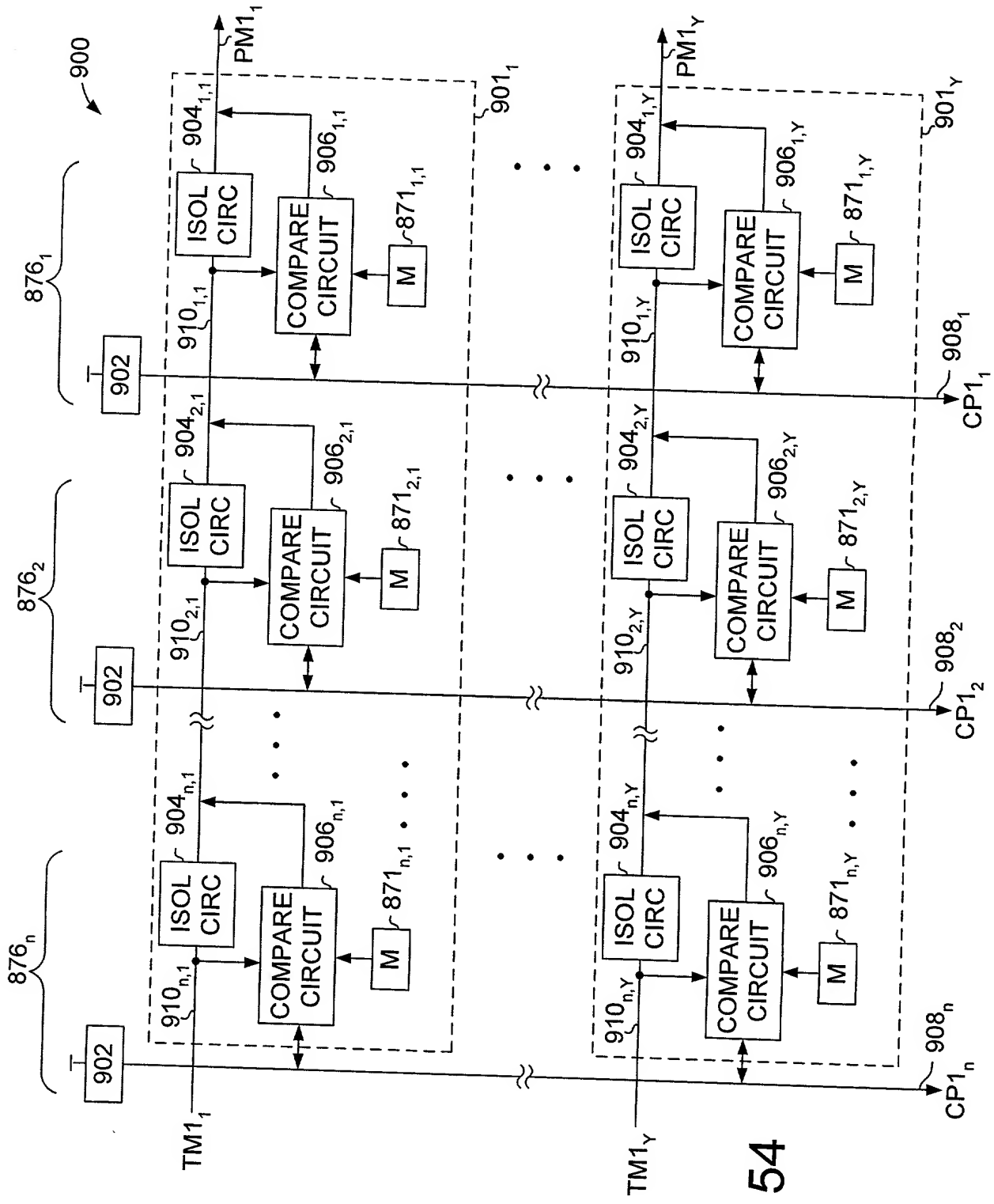


FIG. 54

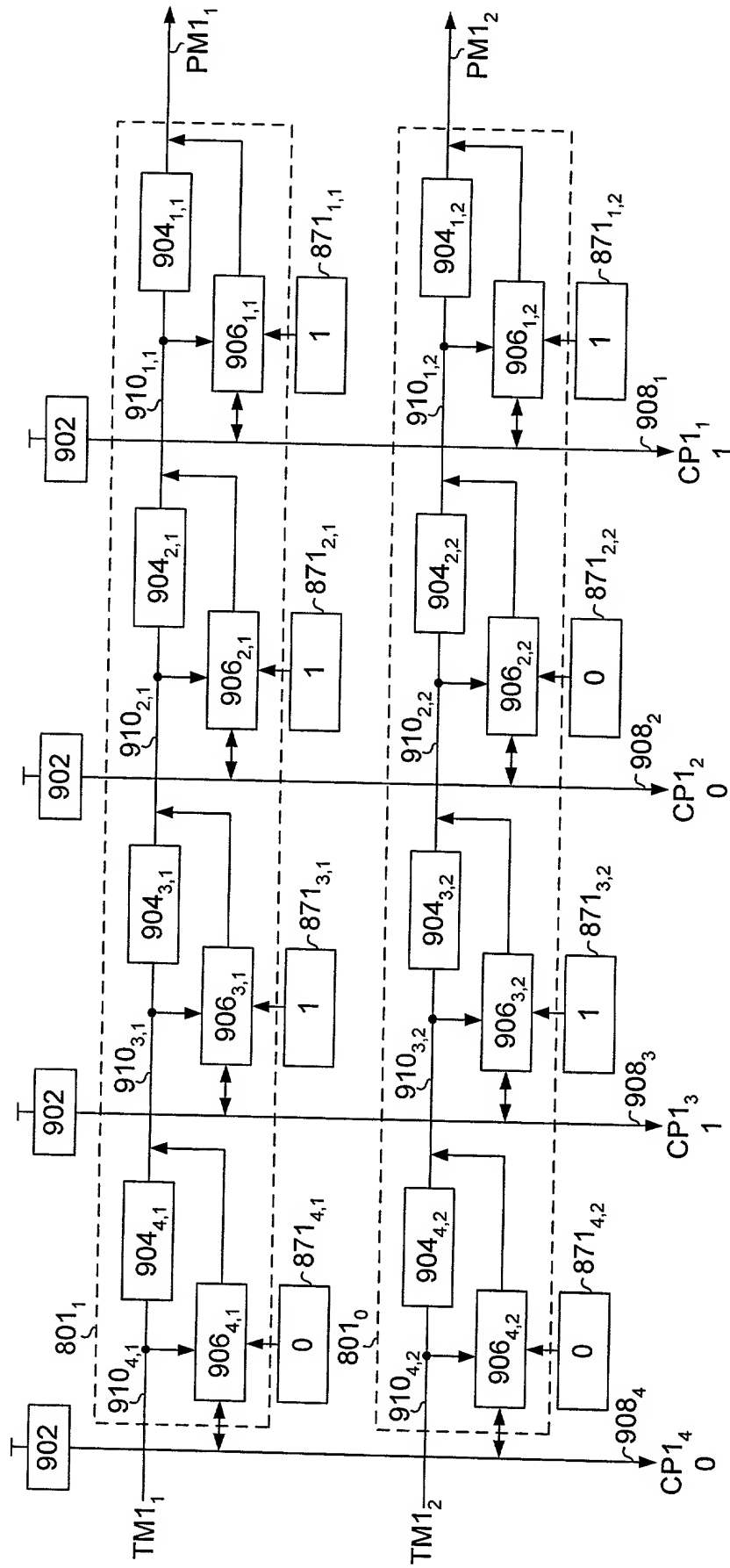


FIG. 55

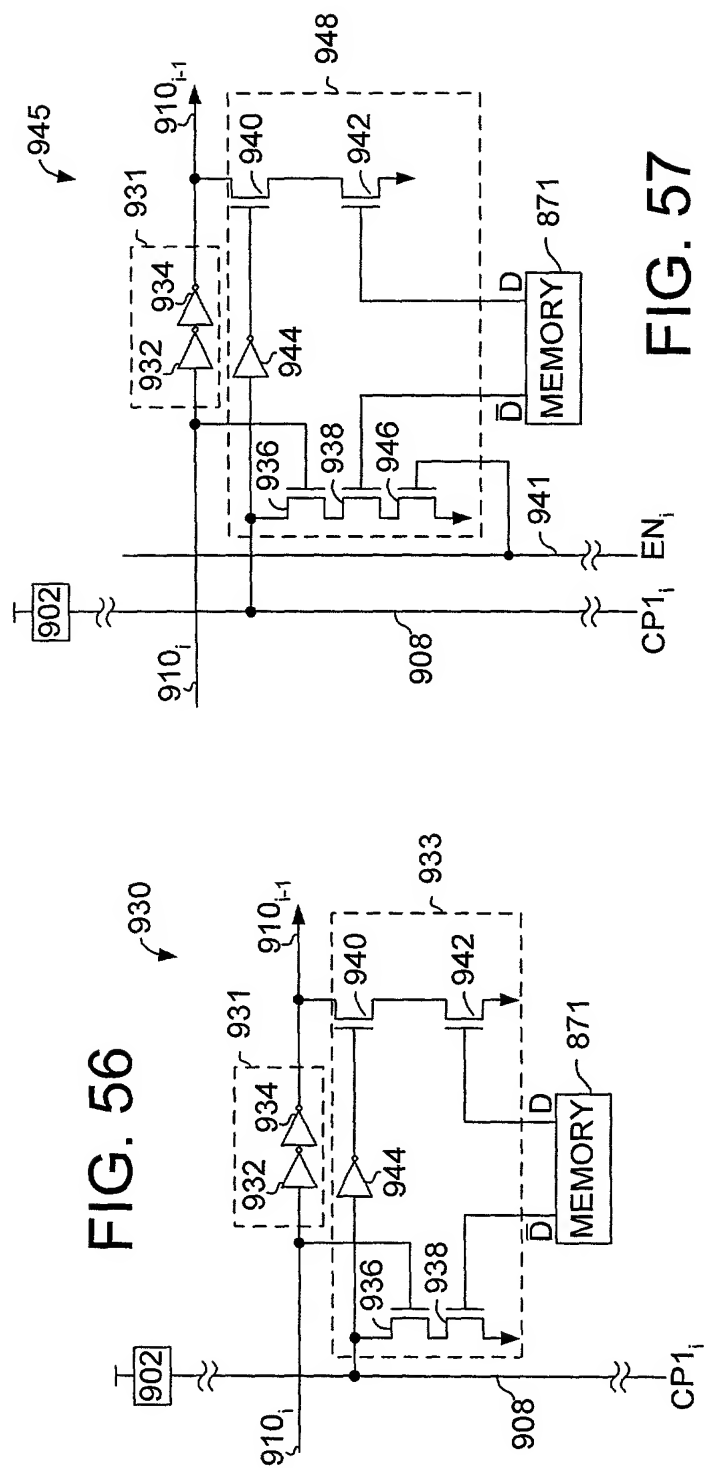
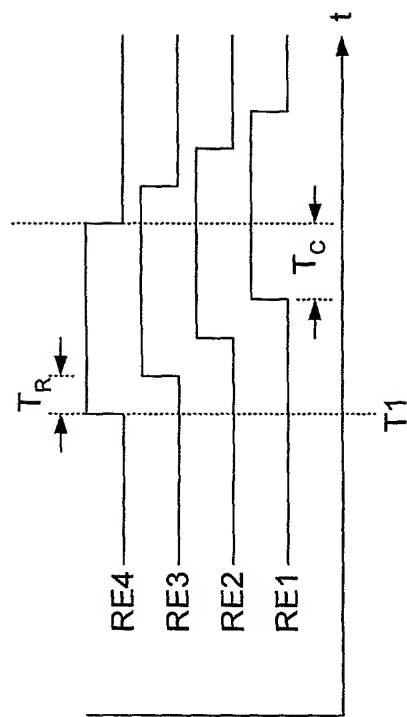


FIG. 57



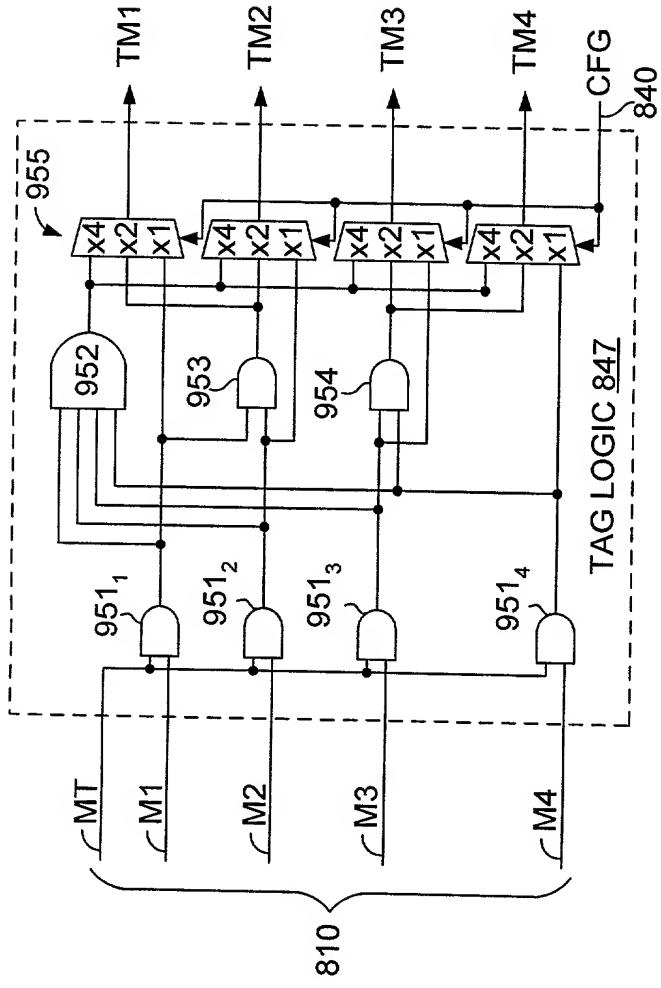


FIG. 59

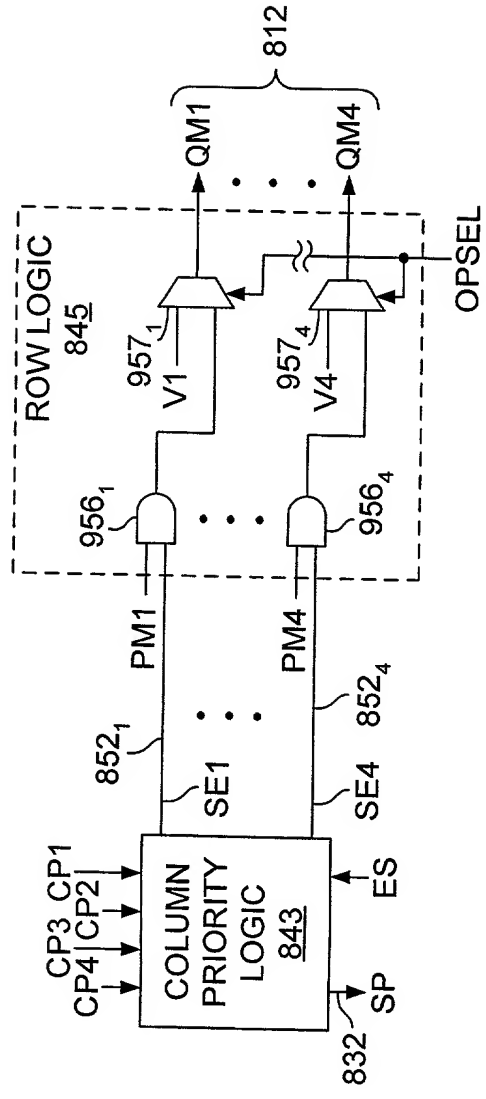


FIG. 60

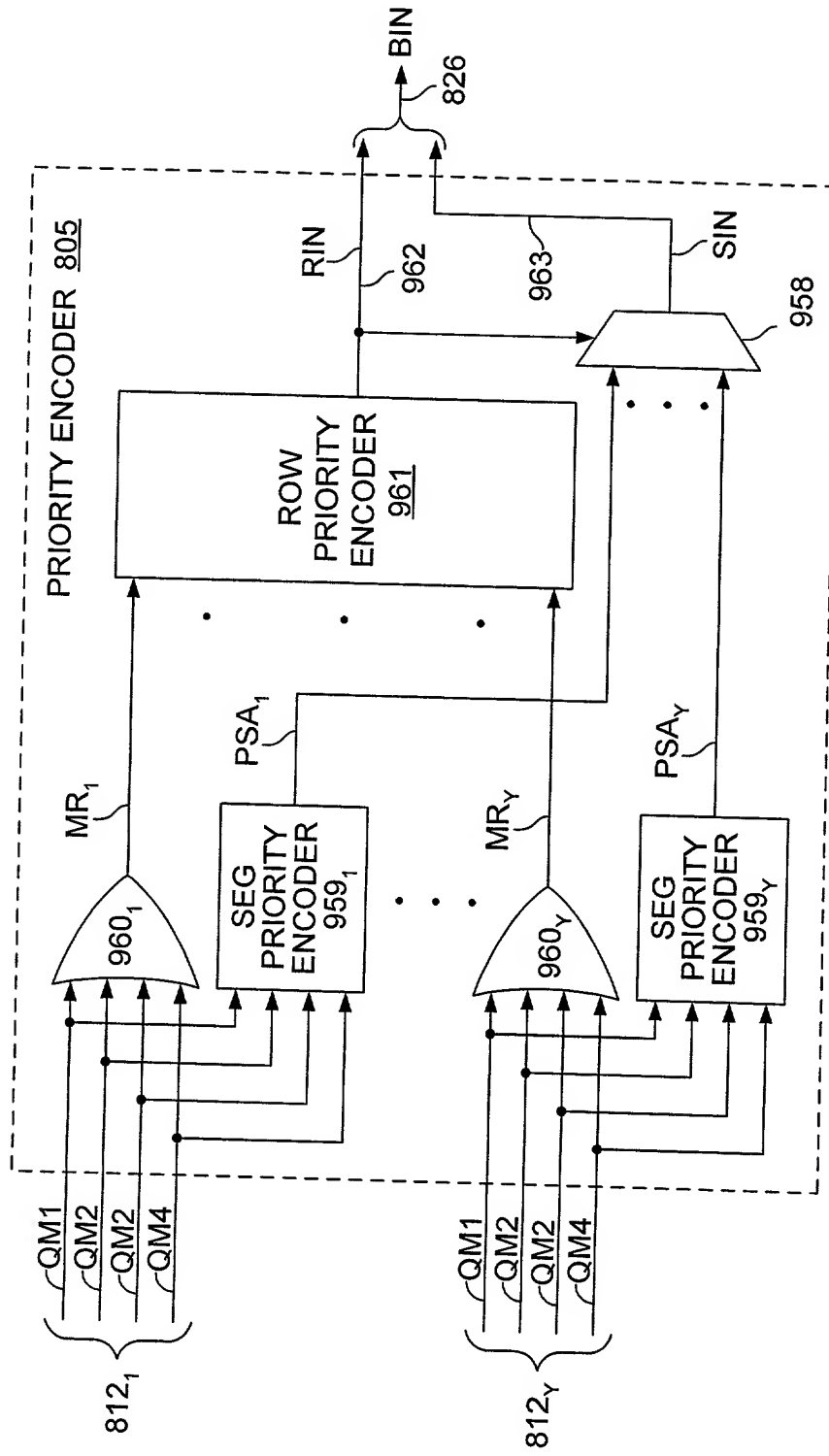


FIG. 61

FIG. 62

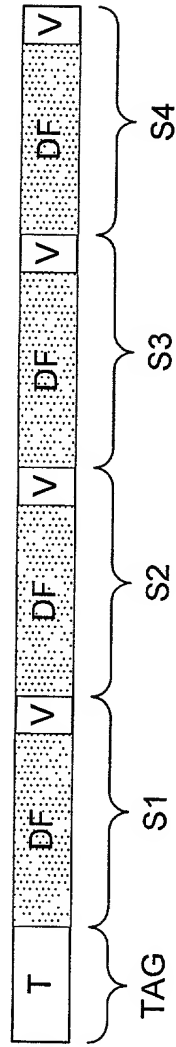


FIG. 63

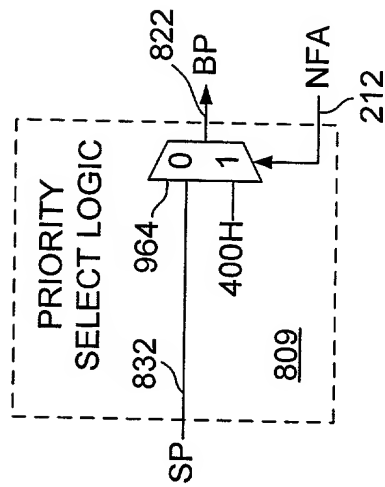


FIG. 64

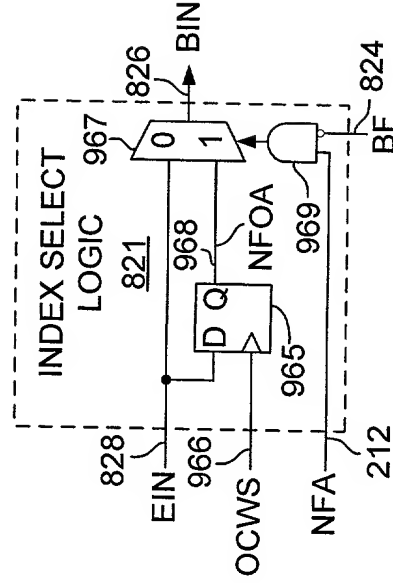


FIG. 65

